h, Folk and CIES

Master Touch

est putters, with perhaps the Leo Diegel, the Agua Cali- otures Professional Golfers' nt recently concluded over

—Associated Press Photo

COMIC SECTION

Los Angeles Times

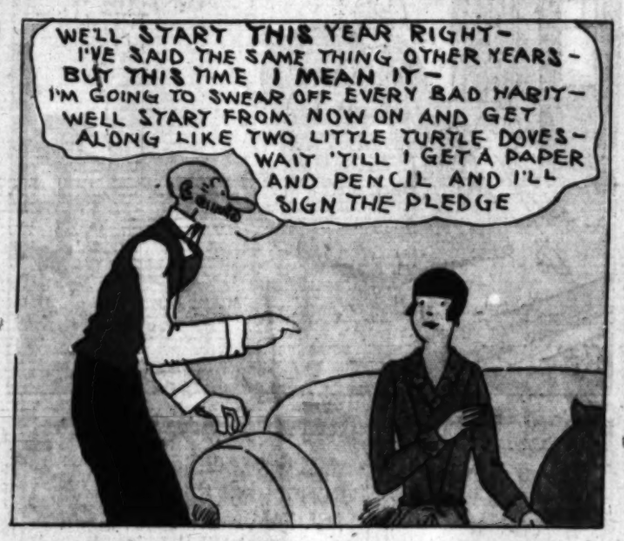
PART VII; 8 Pages

Vol. XLVIII

SUNDAY MORNING, DECEMBER 29, 1929.

HUMOR Fun for the Young Smiles for Their Elders

WELL MIN - 1930 IS COMING AROUND - THINK OF IT - A BRAND NEW YEAR - NOT ONE DAY OF IT HAS BEEN USED - WE'RE GOING TO BLOT OUT THE MISTAKES WE'VE MADE AND START ALL OVER - "THE PAST IS A TOMB OF REGRETS AND SHOULD BE FORGOTTEN"


WE'LL START THIS YEAR RIGHT - I'VE SAID THE SAME THING OTHER YEARS - BUT THIS TIME I MEAN IT - I'M GOING TO SWEAR OFF EVERY BAD HABIT - WELL START FROM NOW ON AND GET ALONG LIKE TWO LITTLE TURTLE DOVES - WAIT 'TILL I GET A PAPER AND PENCIL AND I'LL SIGN THE PLEDGE

WHO'S BEEN AT THIS DRAWER FOOLIN' WITH MY THINGS? HERE'S THE TABLET I BOUGHT AND HAVE NEVER USED WITH ONLY ONE PAGE LEFT IN IT - I PAID A DOLLAR FOR IT - I WISH PEOPLE WOULD LET MY BELONGINGS ALONE

AND LOOK AT MY NEW FOUNTAIN PEN - THE PEN POINT BUSTED AND SOME ONE MUST HAVE PILLED IT WITH GLUE - I'D LIKE TO BOX THE PERSON'S EARS THAT DID THAT

DOG GONE IT - IS THERE NO PRIVACY IN YOUR OWN HOME? IT'S A FINE PLACE TO LIVE WHERE YOU HAVE TO LOCK UP EVERYTHING TO KEEP YOUR FAMILY FROM BREAKING IN AND GETTING IT

I SEE THAT I'VE GOT TO PUT A LOCK ON EVERY THING IN THE HOUSE - I'LL BRING A BIG SAFE HOME TO KEEP MY THINGS IN AND IF I CATCH ANYONE MONKEYING WITH THE COMBINATION I'LL LOCK THEM IN IT
THE THING YOU OUGHT TO DO IS PUT A PAD LOCK ON THAT LOUD SPEAKER OF YOUR'S - LOCK THAT IN YOUR SAFE - DON'T RAISE YOUR VOICE AT ME!

I'LL RAISE MY VOICE ALL I WANT TO - I'LL GO IN THE VOICE RAISING BUSINESS IF PEOPLE DON'T LEARN TO KEEP THEIR HANDS OFF OF MY THINGS - THAT GOES FOR EVERYBODY
IF YOU'RE CALLING HOGS - GO OUT IN SOME PASTURE AND DO YOUR REHEARSING

GO AHEAD - BRING HER IN TOO - BLAB IT ALL OVER TOWN THAT THE GUMPS ARE HAVING A QUARREL - BROADCAST IT - THERE'S YOUR ANNOUNCER -
TILDA - I JUST WANT YOU TO LISTEN TO THIS MAN'S RAVING - DID YOU EVER HEAR ANYTHING LIKE IT?

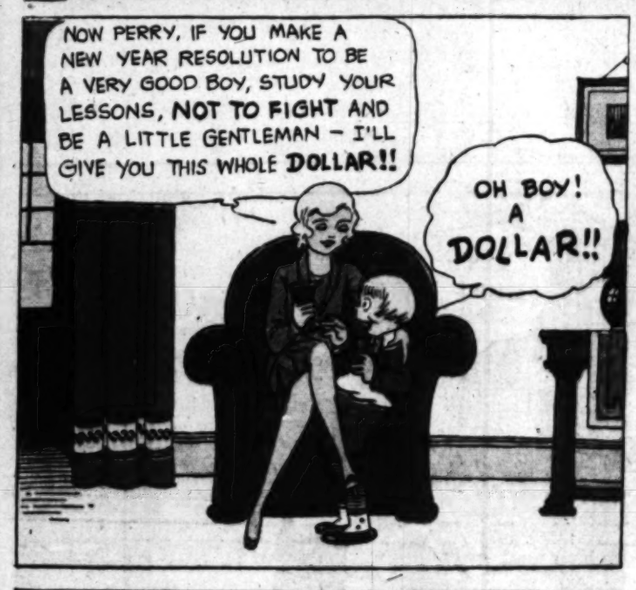
WELL - YOU CAN ANNOUNCE THIS TO THE WORLD - THAT BEGINNING WITH 1930 - ANDY GUMP WILL INSTALL TOM CARR BURGLAR ALARMS IN HIS HOUSE - NOT TO KEEP THE BURGLARS OUT - BUT TO KEEP THE PEOPLE WHO ARE LIVING IN HIS HOUSE FROM BREAKING INTO HIS POSSESSIONS -
? ? ?

DID YOU HEAR HIM? AND CAN YOU VISUALIZE MY HAVING TO PUT UP WITH SUCH A CREATURE 365 DAYS IN A YEAR?
I THINK THE MAN IS DEMENTED
AND YOU WONDER WHY WE DON'T GET ALONG - A FINE CHANCE -

Reg. U. S. Pat. Off., Copyright, 1929, by The Chicago Tribune.

WINNIE WINKLE

The Breadwinner


NOW PERRY, IF YOU MAKE A NEW YEAR RESOLUTION TO BE A VERY GOOD BOY, STUDY YOUR LESSONS, NOT TO FIGHT AND BE A LITTLE GENTLEMAN – I'LL GIVE YOU THIS WHOLE DOLLAR!!
OH BOY! A DOLLAR!!

NOW DON'T FORGET DEAR! YOU'VE MADE A RESOLUTION AND YOU'VE GOT TO KEEP IT FOR ONE YEAR!!
DON'T WORRY SIS! FROM NOW ON, I'M A GEN'LEMUN AN' NO MORE FIGHTS FOR ME !!

LOOK SPIKE! MY SISTER WINNIE GAVE ME ONE DOLLAR FOR MAKIN' A RES'LUTION TO BE A GEN'LEMUN AN' NOT TO FIGHT FOR ONE YEAR!
HUH!! MAYBE SHE'LL GIVE YA ANOTHER DOLLAR IF Y'TAKE UP KNITTIN'!!

A DOLLAR'S A LOT O'MONEY, BUT GEE WHIZ, A YEAR IS A LONG TIME NOT TO FIGHT, PERRY!
WELL – ER – GEN'LEMUN DON'T HAVE NO FIGHTS AN' I'M GONNA BE A GEN'LEMUN !!

JUST A MINUTE, PERRY!! ARE Y'SURE YOU'RE NEVER GONNA FIGHT NO' MORE??
ARE YA SURE PERRY?
SURE I'M SURE!! WHY?
THAT'S ALL WE WANNA KNOW! IF THAT'S TH' CASE THEN WE'RE GONNA TAKE THAT DOLLAR AWAY FROM YOU!!

SO YOU BROKE YOUR NEW YEAR RESOLUTION ALREADY – AND I GAVE YOU THIS DOLLAR NOT TO FIGHT, –
–AND THAT'S JUST WHY I HAD TO FIGHT – TO KEEP THAT DOLLAR!!

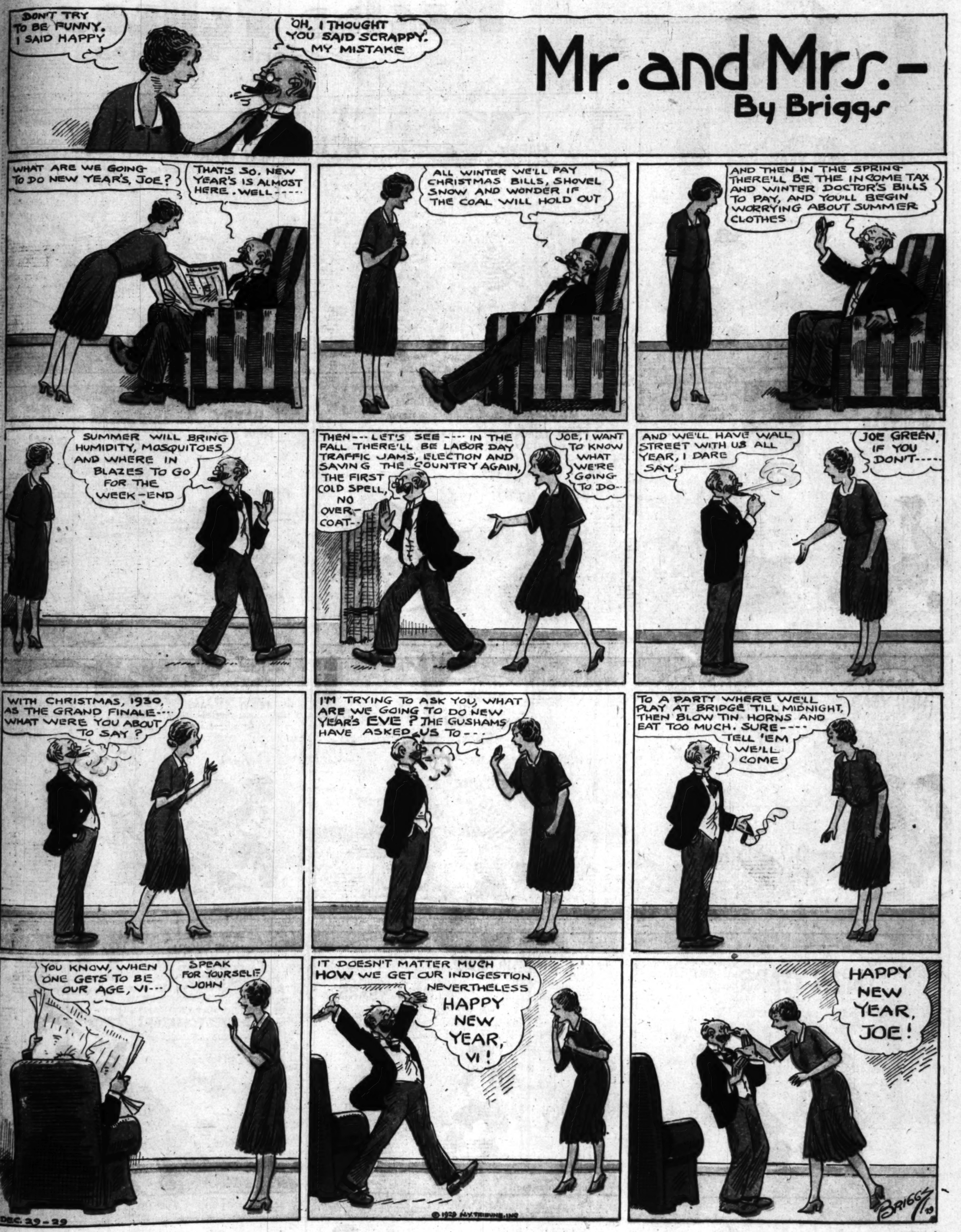
WELL, WINNIE TOOK MY DOLLAR BACK AN' ALL RESOLUTIONS IS OFF – SO IF ANY OF YOU GUYS WANNA START SOMETHING –
HOORAY!
IT'S GONNA BE A HAPPY NEW YEAR, PERRY, OL' KID!!

REG. U.S. PAT. OFF. © 1929 CHICAGO TRIBUNE.

BRANNER

Mr. and Mrs.-

By Briggs


DON'T TRY TO BE FUNNY. I SAID HAPPY
OH, I THOUGHT YOU SAID SCRAPPY. MY MISTAKE
WHAT ARE WE GOING TO DO NEW YEAR'S, JOE?
THAT'S SO. NEW YEAR'S IS ALMOST HERE. WELL-----
ALL WINTER WE'LL PAY CHRISTMAS BILLS, SHOVEL SNOW AND WONDER IF THE COAL WILL HOLD OUT
AND THEN IN THE SPRING THERE'LL BE THE INCOME TAX AND WINTER DOCTOR'S BILLS TO PAY, AND YOU'LL BEGIN WORRYING ABOUT SUMMER CLOTHES
SUMMER WILL BRING HUMIDITY, MOSQUITOES, AND WHERE IN BLAZES TO GO FOR THE WEEK-END
THEN--- LET'S SEE---- IN THE FALL THERE'LL BE LABOR DAY TRAFFIC JAMS, ELECTION AND SAVING THE COUNTRY AGAIN, THE FIRST COLD SPELL, NO OVER-COAT--
JOE, I WANT TO KNOW WHAT WE'RE GOING TO DO--
AND WE'LL HAVE WALL STREET WITH US ALL YEAR, I DARE SAY.
JOE GREEN, IF YOU DON'T-----
WITH CHRISTMAS, 1930, AS THE GRAND FINALE--- WHAT WERE YOU ABOUT TO SAY?
I'M TRYING TO ASK YOU, WHAT ARE WE GOING TO DO NEW YEAR'S EVE? THE GUSHAMS HAVE ASKED US TO---
TO A PARTY WHERE WE'LL PLAY AT BRIDGE TILL MIDNIGHT, THEN BLOW TIN HORNS AND EAT TOO MUCH. SURE----
TELL 'EM WE'LL COME
YOU KNOW, WHEN ONE GETS TO BE OUR AGE, VI--
SPEAK FOR YOURSELF, JOHN
IT DOESN'T MATTER MUCH HOW WE GET OUR INDIGESTION. NEVERTHELESS
HAPPY NEW YEAR, VI!
HAPPY NEW YEAR, JOE!
DEC. 29-29
© 1929 N.Y. TRIBUNE, INC.
BRIGGS '29

"Mr. and Mrs." Are on the Air Over KHJ Every Saturday from 6 to 6:30 p.m.

Reg'lar Fellers

By Gene Byrnes

JIMMIE DUGAN CAN'T PLAY TO-DAY! HE AINT ALLOWED OUT FOR THREE DAYS ON ACCOUNT OF FOR SOME REASON HE SOAKED PUDDINHEAD ON HIS NEW HAT WITH AN OVER-RIPE TOMATER!

The Junior Times
Los Angeles, California, Sunday, December 29, 1929

WING AND TRACTOR BUILDING EXPLAINED

(Continued from Page 1)

stance, drag. We may express this by saying our wing should have a high ratio of lift to drag; another words, our L-d (lift divided by drag) ration for the wing must be high.

Center of pressure travel: By center of pressure travel, we mean the variation in the position of the center of pressure from one point of a wing chord to another when the wing is set at different angles of incidence.

Lift and drag coefficients: The angle the chord of an airfoil makes with the air flow is known as the angle of incidence. As this angle changes the amount of the lift and drag also change. The change in the lift and drag at incidence angles from negative 12 deg. to positive 22 deg. is experimentally determined by means of a wind tunnel, and these changes are expressed by a number (which, of course, varies with the drag and lift) which is termed the coefficient of lift (marked CL) and the coefficient of drag (marked CD.) For those not familiar with the term coefficient, it may be defined as the number or symbol used as a multiplier to express the amount of change under certain conditions.

N.A.C.A. REPORTS IMPORTANT

A cross-section of a wing is known as an airfoil section, or simply wing section. Hundreds of wing sections, of all shapes have been tested in the experimental labbratories of England, France, Germany, America, and the results published in bulletin form by the National Advisory Committee for Aeronautics, Government Printing Office, Washington, D. C. The results obtained by testing the wing sections give a great deal of information to model airplane builders. By being able to understand the information published, you can at a glance pick the best wing section available for your particular model. The N.A.C.A. bulletins contain graphs upon which have been drawn curves expressing the values of lift coefficient (CL) drag coefficient (CD.) lift-drag ratio (LD) and center of pressure (CP) variation for various angles of incidence, i.e., or angle of attack. Remembering that the CL and CD is a means of telling how the lift and drag changes as the wing changes its angle of incidence, we can refer to the N.A.C.A. reports, analyze the wing curves, and pick the section best suited to our needs; whether it be a wing section for a light, fast plane or one for a slow, heavy model, whether it is to be a very stable cambered surface, etc.

REPRODUCING WING SECTION

Let us learn how to reproduce a chosen wing section, from the N.A.C.A. reports. In this report, as shown as N.A.C.A. report, in the upper right-hand corner of the introduction, this section is known as the N.A.C.A.-07VH. If you are not familiar with the coordinate system of plotting curves, the procedure of laying out a wing section is as follows: Decide upon the chord length which your airfoil shall have, and multiply this length by the percentages given in the table (See Fig. 1, upper left-hand column) under the per cent sign. This divides the chord into a number of stations. The next two columns marked upper and lower, give in per cent of the chord the height of the upper and lower surfaces at their respective stations. The stations are laid out from the leading edge, and the points from the upper and lower surfaces, given in columns two and three, are laid out vertically above the chord line at the corresponding stations. To obtain the wing curve, connect the points thus found.

Let us plot, for example, the wing curve of Fig. 1. Draw a horizontal line equal to the chord length of your wing. Divide this chord line into ten equal parts and draw vertical stations through each point. Each part will, of course, represent 10 per cent of the chord length. Since the wing section always curves most at the nose, it will be necessary to subdivide the first 10 per cent of the chord length into 5, 2½ and 1 1-4 per cent. Now, using our chord line as a base-line, measure 1, 2, 3, 4 etc., up to 12 per cent of the chord on the first vertical station passing through O. We see, by referring to our table, that at O degrees chord length, our upper curve (reading the column marked upper) is located at 3.5 per cent; at 1 1-4 per cent our upper curve point is at 5.45 per cent (about 5.5 per cent.) and at 5 per cent of the chord you will note that the curve of the upper surface passes through a point 7.9 per cent of the chord in height above the base-line. By plotting all of these points in this manner and drawing a smooth curve through them, you will have the same shape to the upper surface as the one you are reproducing, the N.A.C.A.-07VH. The lower curve is plotted in exactly the same way, using, of course, the points as located by the figures in the column marked "lower." Incidentally, this curve has excellent characteristics, as we shall later see, and is a good curve to use in the outdoor-fuselage type model airplane.

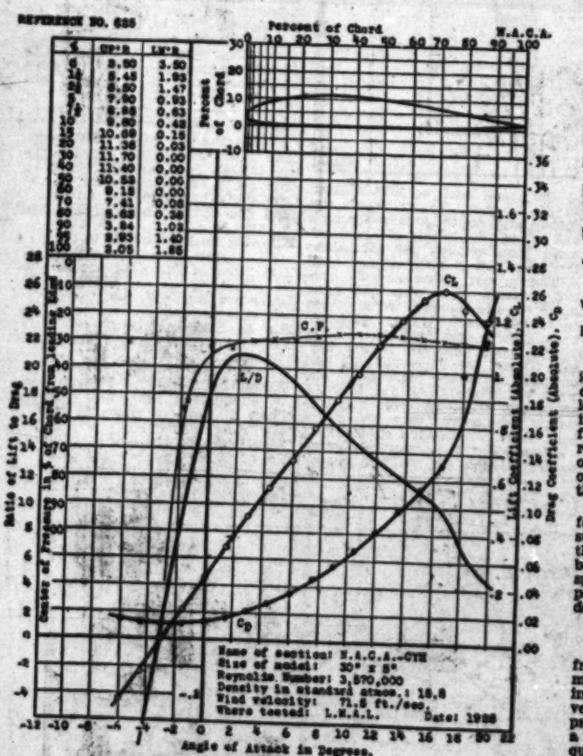


FIG 1.

PART II

BUILDING TIMES-PLAYGROUND INDOOR NOVICE TRACTOR

Have you passed your novice glider and R.O.C. tests? If so, you are ready to build the most interesting model of them all, the specially designed indoor novice tractor. Gilbert Westphal, the youthful designer of the Westphal glider, developed this model, and how it flys! It is unquestionably the easiest constructed, best flying and strongest tractor model yet developed.

Get started on it right away. With the experience you've had with the previous models, it will be a simple job to make this novice tractor and pass your tests. The materials needed to make this tractor are:

One piece of balsa, size 15 by 1-8 by 1-4 inches for the fuselage.

One piece of balsa, size 1-16 by 2 by 24 inches, for the wing and supporting surfaces.

One piece of balsa, size 7-8 by 1 by 10 inches, for the propeller.

One piece of Japanese tissue for covering the supporting surface.

One thrust bearing.

Two feet of No. 6 piano wire for wire fittings.

One strand of rubber, 1-32 by 1-8 by 30 inches, for the motor.

Some cement and banana oil.

In appearance, the Westphal novice tractor is similar to the "Gruber" R.O.C. described in the last lesson, except that it has no landing gear, and has a much greater fuselage length and wing span. By referring to the assembly drawing of the previous lesson, the position of the body, wing, bearing, etc., on the novice tractor is easily seen.

Study the full-sized drawing before beginning to build. Note the sturdy construction of the model; this makes it much easier for the beginner and, if made exactly to specifications, will give excellent performance both indoor and outdoor.

MAKE METAL PARTS FIRST

The thrust bearing shown on the front end of the motor stick is made from a 1-32 by 3-32-inch by 1 inch strip of brass. Drill or punch a very small hole in one end for the propeller shaft. Next bend it into a right angle at a distance one-quarter inch back from the end containing the hole. Be careful not to make the angle of your bend too sharp or the propeller will rub against it. Glue the bearing on the stick with cement as shown on the drawing. Note again that the novice tractor, like the R.O.C., has the underslung motor.

Next bend the wire fittings numbered from 1 to 8 and including the two wing clips, propeller shaft, rear motor hook and "S" hook. Make these of piano wire with the aid of the long-nose pliers. The drawing shows them full size so use it as a pattern to check the accuracy of the fittings. Note that one leg of each fitting is slightly longer than its mate. This is caused by the wing clips being located off center of the wing; a very important feature of this tractor.

FUSELAGE AND TAIL SURFACES

The fuselage merely consists of a rectangular balsa strip, size 1-8 by 1-4 by 15 inches. Tapering the nose, as shown in the drawing, will add to the appearance of the model.

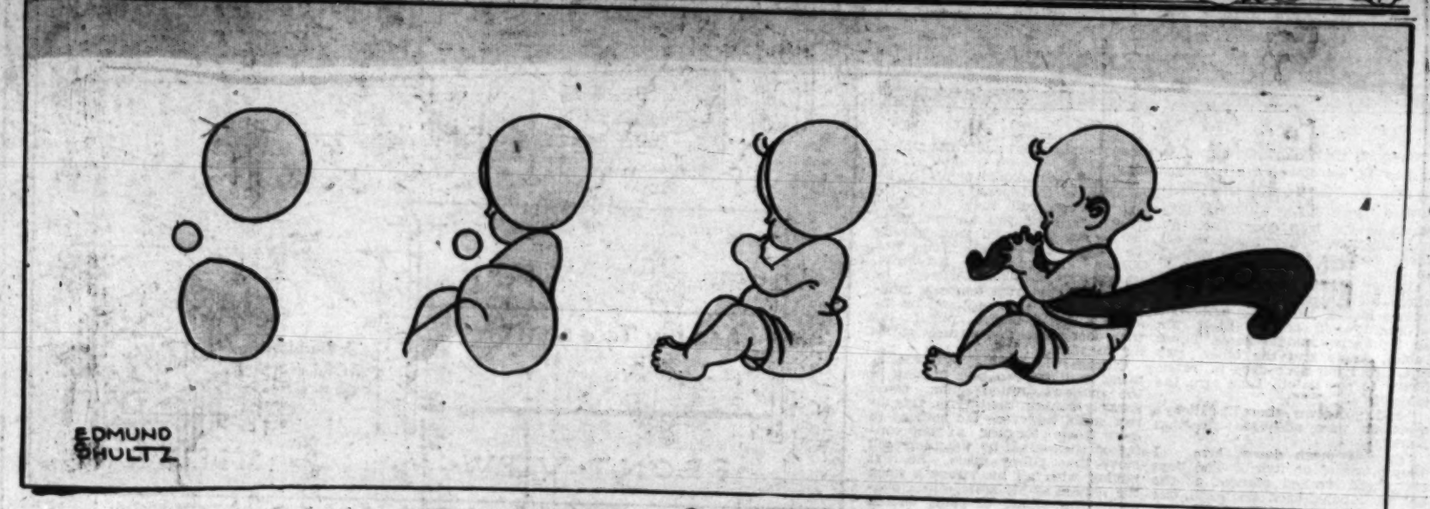
From the 1-16 by 2 by 18 inch strip of balsa slice two pieces each

(Continued on Page 8)

ABOUT A HUNDRED FOLKS HAVE JOINED THE "TIMES" JUNIOR CLUB OUT OF CURIOSITY AND THE BEST ORGANIZATION OF ITS KIND IN THE WIDE WORLD
FRANK YAP PHILIPPINES 1929

By Frank Yap, Age 16 Years, Camiguin Institute, Mambajao, Misamis, P. I.

Good Hunting!



Prize-winning New Year's Drawings by Ed Shultz and Albert Kaelin

WING AND TRACTOR BUILDING EXPLAINED

"Times"- Playground Lesson Gives Facts on Airplane Design and Details on Novice Craft for Members to Build

By Louis A. Orsatti, Los Angeles Playground and Recreation Department.

(Another lesson in the course of The Times-Playground Aircraft League, an organization to encourage young Americans to build and fly their own planes.—Ed.)

PART I

AIRPLANE WING DESIGN PRINCIPLES

EFFICIENCY

So far we have developed the airplane to the point where it might seem we are prepared to see it fly satisfactorily. We have provided lift to overcome weight, and power and thrust to overcome resistance or drag; and we have built into our airplane a means to obtain a degree of stability.

However, every machine, our model airplane included, to work satisfactorily, needs efficiency. The quality of efficiency is of greater importance in the design of an airplane than in any other engineering problem, because the flight of an airplane calls not only for propulsion, but also for dynamic sustentation, i.e., keeping a plane in the air while in motion. It would be possible to make a tin-plate fly if enough power were put behind it, but what a horrible performance we would have! So keep in mind that efficiency, the ability of each part of the airplane to be doing its work to the utmost, is a very important consideration in not only man-carrying ships, but also in model airplane building and designing.

Before proceeding into the problem of wing design, it is important to understand the terms which will be used in the text. Among these are lift to drag ratio; center of pressure travel; coefficient of lift, and coefficient of drag.

TERMS DEFINED

Lift, of course, is the main factor in flying, so let us tackle the problem of obtaining efficiency from that part of the airplane responsible for our lift, which is the wing.

Lift to drag ratio: It is necessary for our wing efficiency that it provide the most lift with the least re-

(Continued on Page 4)

The Cracked Mirror

by Alex Melancon

ILLUSTRATED BY ED BENEDICT

"Suppose they did," O'Brien remarked in icy tones, "there's no use dyin' over it." Tommy and Chico blushed painfully, while Gilroy stared at the trap door. Then he said, absently, "They heard us all right; question is, how far should we go?"

O'Brien patted his right side, where an automatic swung neatly from a leather belt. "The limit," he advised, "when anyone backs me up, fight's my middle name. These babies, Annie and the other two rats, are lying neck deep in water, hopin' to pop us off. Let's turn the tables."

"And go down there?" Gilroy's eyebrows were adequate question marks.

"Sure, I mean down there. I wasn't talkin' of flyin'." The boys exchanged amused glances, as the officers bandied back and forth, one anxious to pry open the trap door, the other more cautious.

O'Brien, however, was on his knees, feeling about the barely vis-

ble crack, which indicated the secret opening. "Here it is," he cried, "if we had a few stout knives, we could pry it loose. There's not much of a latch on the other side."

"That alone indicates danger," Gilroy mused, "this gang knows what it's all about. They're not building waterways to ferry stolen goods on, leaving their entrance half-barred. What their exact is an attack, and, as they are hiding in darkness, have the advantage of us."

"Why, let 'em keep it," fumed O'Brien. Then, angrily, "say, what's ailin' you—not yellow after all these years' service under the Chief, are you?"

Gilroy's face colored painfully, as he pried at the door. "You're the first one to pull that," he said, gruffly, "and, if you weren't married to my sister, I'd grab you by the pants, and chuck you in." O'Brien grinned good naturedly, "that's why I take liberties," he said. "But, my Irish temper's longin' for action. Let's go," and he inserted a double-bladed knife in the trap door, that was already starting to yield.

O'Brien was puffing with excitement, and the two boys lurking in the shadows behind him, could scarcely contain themselves. One direct push, however, had sufficed to quiet their tongues, so they contented themselves by watching each move that Gilroy made. He was pulling with all his strength upon the handle of his knife, when, suddenly, the square of paint flecked wood, flew up toward them.

"Jumpin' Juniper berries," crowed O'Brien, "it this a rat's hole?" Then his face close to the inky well beneath them, "load up boys, with four of us, and six guns, we'll give Annie a hop through the mud pocket." His round, good-natured face turned drolly toward them, caused Gilroy to chuckle, as he looked apprehensively at his automatic.

"Yep," he agreed, concealing the bright light of his flash, "we'll give her a run." Both men were listening intently for the least ripple in the water, but none occurred. They heard nothing save the familiar swish and chortle of the pool beneath them.

"Sounds deep," whispered Gilroy, "here goes my knife. We can tell by the way she hits." And they leaned forward expectantly, as a dull splash resulted, followed by many ripples, which, however, were slow in coming. "Not so deep," decided Gilroy, "duty is duty, so here goes. I'll take a straight drop, and if it's deep, I'll come up swimming. If not, it won't be over my head. Should there be a trick about this thing, and necessary for me to get back, swing one of the kids down and I'll grab the other side."

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Welcome!

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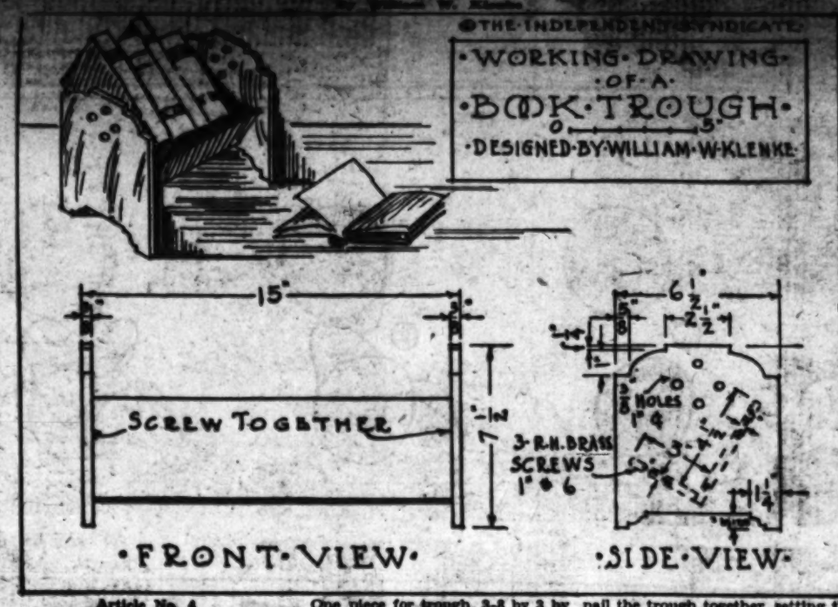
THINGS EASY TO MAKE



Article No. 4

BOOK TROUGH

Boys, here's a book trough that will make a fine thing in which to keep your favorite books of adventure and the like. It's a handy thing to stand on top of your table and also makes a splendid holder for your reference books when you're studying.

There's probably an old soap box down in the cellar, plenty good enough for this little job. Let's knock the box apart first, being careful not to split the wood; then remove the nails. You will require the following pieces of wood, called "stock." The dimensions given will be finished measurements, which means you must allow for planing the stock to the exact sizes and smooth surfaces.

Two pieces for sides, 3-8 by 6¼ by 7½ inches.

One piece for trough, 3-8 by 3 by 14 1-4 inches.

One piece for trough, 3-8 by 4½ by 14 1-4 inches.

One piece for top, 1-2 by 7½ inches. Stock. Hand-dress (plane) all stock to the correct sizes.

Step No. 2: Laying out end pieces. Lay out the end design on a piece of heavy paper or cardboard and transfer this to the wood.

Step No. 3: Cutting end pieces. Bore the four holes, being careful to work from both sides of the wood to prevent splitting as the bit comes through. Now saw out the outline with a jig or compass saw.

Clean up these curves with a sharp chisel and the small places with a cabinet file.

Step No. 4: Sandpapering. Thoroughly sandpaper all pieces with No. ½, No. 0 and No. 00 sandpaper. Do the rubbing with the grain.

Step No. 5: Assemble. Glue and nail the trough together, setting the nails slightly below the surface. Bore holes in the end pieces to receive the screws. Now drive the screws in place and bring the joints up tight.

Step No. 6: Cleaning up. Remove all excess glue with a sharp chisel, cutting across the grain where possible, then thoroughly sandpaper all parts with No. 0 and No. 00 sandpaper. Slightly round all sharp edges.

Step No. 7: Finishing. Apply a brush coat of your favorite stain; when dry, apply one thin coat of white shellac, then rub down with No. 00 sandpaper. Put on two or three additional coats of shellac, rubbing each coat, when dry, with No. 00 sandpaper. The last coat should be rubbed with fine pumice stone powder and crude oil.

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"MAGIC CITY" FAN LETTERS

Dearest author of "The Magic City":

How I do love Squirmy-Turn, and all his friends. I've followed his adventures from the very first chapter, and can hardly wait for Sunday to come, when I know The Times will tell me what happens to him next. It's the most exciting story ever written, and I do want to know who is going to publish it.

I think Lila-Lee is too sweet for anything. Will she ever be captured by Neptune again, and what happening with the deadly sea-violets? I'll bet Squirmy plants them all over again. Don't forget the Cowardly Lion; please put him in at the end.

Will this story ever appear in picture form in the movies? Please let me know. Hoping "The Magic City" never ends.

Your faithful pal,
[Signed]
GLADYS BROWN.
Los Angeles.

Dearest Aunt Dolly:

I love Squirmy! I just love him! Isn't he sassy and full of mischief, and everything he shouldn't be? What happens to him in the end? Will he have to go through the Black Forest all alone with the Bungle-Bug, or will Lila help him? I can hardly wait to find out. Please make this story heaps of chapters longer. I've read every word you have ever written, and I do love it so.

Yours for more "Magic City,"
[Signed]
DONALD McFADDEN,
Redondo Beach.

GOOD CANDY RECIPE

By Agnes Lane, North Hollywood

COCOANUT CARAMELS

Four squares of chocolate or four tablespoonfuls of cocoa. One cupful of brown sugar, one cupful of corn syrup, one cupful of milk, one heaping tablespoonful of butter, one teaspoonful of vanilla, one cupful of cocoanut.

Cook chocolate, sugar and milk until they form a hard ball in cold water. If you have not brown sugar on hand, take out three tablespoonfuls of corn syrup from the cupful and replace it with molasses. Add butter, vanilla, and cocoanut. Pour into buttered pan. When cool, roll into small balls and cover with cocoanut.

By Myrtle McIntyre, Age 16 Years, Pasadena

De Magic City

by Aunt Dolly

ILLUSTRATED BY ED SHULTZ

"Nobody knows where we are going, you foolish Goose," scolded Capt. Sp and Sc, "a lot of good it would do anyway."

"Are we traveling on water, or through the air?" wept Gandy frantically, "I don't like this floppy, upside-downy raft, one bit."

"Who does?" asked Capt. Hook, sarcastically, "so tell you the truth, my tummy looks like scratch. It was Peter brought this on us. By the way, where is he?"

Everybody strained their eyes in the darkness, but the fairy boy had completely disappeared.

"Now, what will we do?" cried Lila, holding tight to an old piece of bedding they had woven in the raft, "this is a terrible situation. We're heaving about like an egg shell."

Through the darkness, came a greenish light, he slowly became falling upon them, so that the frightened adventurers could once more see each other.

"It's that key," complained Lila, "whenever this greenish light finds us, he's behind it. Oh, dearie me, but I'm sick of magic — I'd give three Christmases in one, to go home."

"How about Cross-Patch?" asked the Goose, slyly, "remember how he used to keep you locked in the tower?"

"Yes, but I had my books and spinning. I thought I was having a very hard time of it." This raft gave an exceptionally heavy lunge, nearly upsetting the strange group of creatures clinging to its surface. "Can you imagine, being lonely in a comfy, cosy tower?" sobbed the Princess, "Jack-a-me, a person never knows when they are well off."

"And me with my garden, I wandered among the flowers all day," sniffed poor Gandy, waving her tail to and fro. "It's taught me a lesson. There's no place like home."

"Pooh!" grumbled Capt. Sp and Sc, "that's just like a girl," then, in not quite so decided tones, "but, perhaps you are right. A warm hearth and a good book could be mighty nice."

"We're homesick, that's the truth of it," admitted Capt. Hook, "and if anyone should ask you, I'm cold in the bargain." Nobody answered him, and presently, Lila began to sob in the darkness.

"There, there," comforted Gandy, spready her motherly wings about her, "even a magic journey must end. Bless my heart, if I don't see something that looks like an island, but it can't be." Instantly, the wanderers clinging to the edge of the raft stood upright. They were so excited, they nearly fell into the dark and icy ocean.

"It is an island," shouted the pirate Captain, "you can have my hook if it isn't."

"You're right," cried Lila, drying her tears, "I see lights and people, such funny little people, running down to the shore. They're tiny as clothespins. Where can we be?"

"We're going to find Squirmy in his shell-ships," cried Lila, with a flare of her old temper, "if I have to sail twice around the world."

"Isn't he with Bungle-Bug?" asked Gandy, practically, "and aren't they the best of friends?"

"Umh-huh," the Princess did not like to have anyone make her appear ridiculous.

"Then, why not let them alone?" "Alone?" Lila was horrified, "that poor little fish, wandering over the ocean, with a simple-minded bug, that hasn't the sense of a flea. My dear Gandy, what possesses you?"

The goose looked grum-y and cross, and folded her wings, as much as to say, "no more from you," but Lila was not in the mood for trifling. She was peering through the darkness, toward a tiny island, that shone and sparkled like star-dust. It was white all over, except on the edges, which were a brilliant crimson.

"Looks like a birthday cake," remarked Capt. Hook, hungrily, "as I live, I think we could eat it in a pinch."

"You glutton," scolded the Goose, "jack-a-day, if were not landed." True enough, the raft had bumped squarely alongside the sparkly little island, allowing its passengers to step on a surface of ice-crusted snow.

"Humph," said Gandy, "I wonder what those are?" As she spoke, they beheld a crowd of tiny people pressed close to a briar-wood gate. Their round little faces were wreathed in smiles, but their bodies were wizened with age. They were clothed in scarlet jackets, and wore dull green pants held in place by leather boots. These had golden bells at the knee, which jingled pleasantly each time they moved.

"Can't imagine," said Capt. Sp and Sc, polishing his brass buttons, "but they don't look ferocious."

At that, the tiny people behind the briar-wood gate, began to laugh—they laughed until the ice cracked beneath them, and the sea, on either side of them, lifted up and down with amusement. Lila found herself smiling happily.

"I like them," she cried, "they seem so friendly, let us explain who we are."

"Good idea," said Gandy, "and since you lived in a castle, you can read and write, suppose you do the talking." So the lovely little Princess gathered up her long train, and addressed the tiny people in a most serious manner.

"Beloved strangers," she began, "it was our good luck to be cast on your island, and now we are here, we wish to tell you, we have been maligned dozens of times. For ages, we were held prisoners in Neptune's gardens, and nearly became one of his pet nuisances." At this point in her story, the tiny people murmured among themselves.

"We have been searching for Squirmy-Turn, the only gold fish in the ocean," explained Lila, "but he is lost, in the middle of the sea, and Bungle-Bug is with him." A long silence fell, during which, the tiny people did a lot more murmuring. Then, one of them, carrying a long yellow candle, unlatched the briar-wood gate, and advanced slowly toward Lila-Lee.

"Do you know who we are?" he asked, jingling his bells, as he spoke. The Princess shook her head in a bewildered way. Then the odd little fellow in his scarlet coat, turned from his group of visitors, and waved his hand three times toward the back of the island. Above it, like shooting stars, danced rosy letters. Some of them appeared upside down, some refused to stand still, but the Princess, looking at them with the greatest of attention, was able to spell M-e-r-r-y C-h-r-i-s-t-m-a-s!

"Merry Christmas," she repeated, dancing up and down on the snow. "How lovely. What a wonderful place this is."

"Now, do you know who we are?" asked the wee, little man in his crimson coat.

"No!" Lila was ashamed to show how ignorant she was, but was forced to repeat, "No! truly, I cannot even guess."

"Then, let us be introduced," cried the odd creature with his jingling bells, "you are adventurers on the high seas, looking for a gold fish, and we are the Tippity-Taps, who work for Santa. This is our island of Toys, where we live with the polar bears, and have a very cosy time. If you promise to forget what you have seen, we will take you into our family kitchen."

Lila clapped her hands with glee. "Santa's kitchen," she cried, "could anything be more thrilling. . . ."

(To be continued)

In Ed Shultz's drawings of Santa Claus last week the mistake was in portrait No. 2, the right ear opening being turned in the wrong direction.

A Christmas Tragedy

By Clara Scott, Age 15 Years, Los Angeles High School

Ginny groaned and with a sigh tossed me a letter just received from her father.

"—and as mother is in ill health," he wrote, "I am taking her with me to California on this business trip. We will leave the 15th of this month and will be gone until the middle of January, just one month. Tommy (he is Ginny's younger brother,) is going to Aunt Cynthia's. However, you may stay at school during the Christmas holidays if you wish—"

"You poor dear," I murmured sympathetically, and then as one of my brilliant ideas dawned, "why don't you come home with me?"

Ginny is my cousin but as she lives near Chicago, and I in a small New England town, we really don't visit one another often. Aunt Cynthis, to explain still further, is Ginny's great aunt, who lives in a terribly old-fashioned home in Chicago.

"Of course," I added, "my home is further from school and also we are usually rather crowded around Christmas, still anything would be better than Aunt Cynthis"

I wired home about a week before the holidays began, and mother answered saying it would be all right.

However, "it never rains but it pours," to quote a proverb I once learned. Ginny and I were blythly packing our trunxs when a telegram came, saying that Margie, my little sister, had the measles. Tragic isn't the word to use describing my feelings. My thoughts toward Margie were not particularly affectionate either.

"The worst," wailed Ginny, "is that the only girls staying at school over Christmas are that babyfied little freshie, Carol Morgan, and that awful goody-goody, Marcia Allen."

"And," I remarked, "the only teachers are Miss Norton (the principal of Twin Oaks Seminary,) that terrible old crab, Miss Brown, and Miss Sands, who's always poking around trying to catch me doing something unladylike."

Really though, things weren't nearly as bad as we had expected. The teachers weren't crabby at all. Marcia Allen decided it was perfectly proper for a young lady to go ice skating on the pond, or even coasting in some old sleds we found in the basement. Carol Morgan acted as grown-up as she possibly could, which was really quite gratifying, especially to Ginny, who, although she is tomboyish, loves to pretend she is about 18 or 19, instead of just 16.

On the 24th we were awfully excited. Christmas boxes had come for all of us, but Miss Norton said we could not open them until Christmas morning.

To console ourselves Ginny suggested that we have a "spread." Even Marcia Allen approved.

"I'll furnish pickles and a can of Welsh rarebit," cried Carol eagerly. She seldom attended "spreads" usually afraid of being discovered by the teachers.

"I have some jam, in my room, and I'll guarantee to get some muffins, too," said Marcia. She certainly had changed.

"I suppose it's too cold for ice cream, but," I added, "I'll get some cake and nuts."

Ginny promised to add something

to the feast, and we all departed to the kitchen to ransack the shelves and pantry, where the cook had left a good supply of "goodies," more than enough for Christmas Day. We had a little canned food hidden in our rooms and by borrowing from girls who had gone home for the holidays we managed to arrange a spread, plentiful enough for a dozen girls.

"The pies were all locked up," said Ginny. Our faces fell; we had counted on mince pie. "But," she went on brightly, "I did find a small one that the cook had evidently overlooked, way up on a high shelf. I think it's chicken."

"Remember that perfectly wonderful chicken pie we had a week ago, just before school let out?" I asked, licking my chops.

"You bet!" answered Ginny between eating a cookie in one bite and taking a tablespoon of strawberry jam.

We ate and ate and ate and then certain that

"I don't think I want any pie," said Marcia rather weakly as we prepared to eat the only remaining food. "I—I don't feel just right."

"Well, you can't feel much worse than I," replied Ginny crossly. "We have to finish this pie, and everybody has to eat their share. We can't leave it in our rooms and you certainly don't expect me to carry it back to the kitchen at this hour of the night."

"Anyway the pie's small," but Carol groaned. Evidently she felt the same as the others.

"Our candle's going out in a second, so we'd better hurry," I cautioned. I didn't feel exactly like eating chicken pie either.

The candle sputtered and went out, while Ginny was still cutting the pie. Each of us took a piece and choked it down.

"Ugh, what an awful taste," I groaned.

"It must have been terribly old," grumbled Marcia. "Maybe, the cook made it last week when we had chicken pie for dinner!"

"I think it was moldy," Ginny added weakly.

"Moldy!" we cried in unison.

"I've—got—an ache—in my tummy." Carol looked rather funny. Silently and slowly we cleaned up the debris.

Then Marcia said, in her babyish way, "I'm glad there's more to Christmas than pie. Probably, most of us look on it as a 'spread,' but not me! I'm cured."

CHRISTMAS

By Martha E. Davis, Hollywood

The sands are soft 'neath the camel's feet,
The air is sweet and clear,
The city's babble is far away,
And the camel steadily plows his way,
Knowing he has naught to fear.

The robes of the rider are soft as silk,
His beard is silken, too.
His eyes are wise,
For he holds a prize,
That the Christ Child's time draws near.

When the Angels of Heaven proclaimed to the world
Their message of peace to man,
The rider was one
Who came to the Son
To offer his spice to the Lamb.

Pit and Pat Cartoon Stunts --- By Ed Shultz

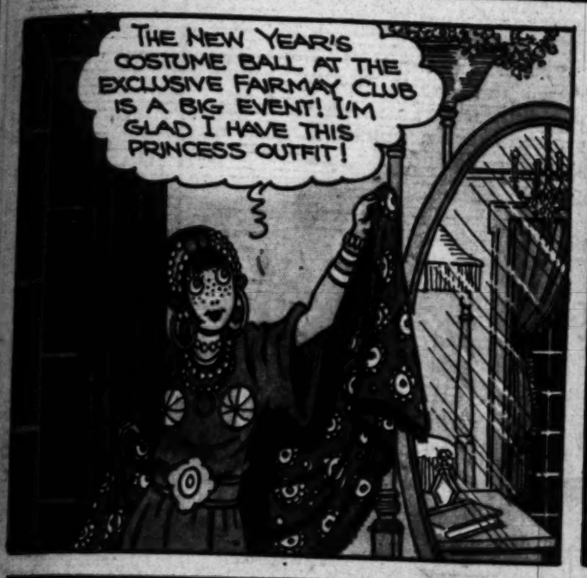
How the Fashion Artist Draws a Hat

Alla Cinders

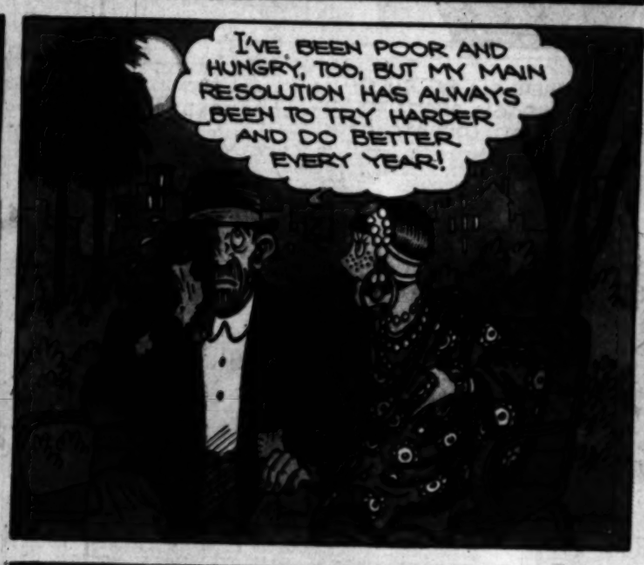
HAPPY NEW YEAR

by BILL CONSELMAN and CHARLIE PLUMB

Reg. U. S. Pat. Off.; Copyright 1929, by Metropolitan Newspaper Service



DON'T BE DOWNHEARTED! THIS IS THE BEGINNING OF A BRAND NEW YEAR! WHILE THERE'S LIFE THERE'S HOPE, AND WHILE THERE'S HOPE THERE'S HAPPINESS!



I KNOW HOW YOU FEEL, BUT PLEASE ACCEPT THIS MONEY AS A LOAN UNTIL YOU GET BACK ON YOUR FEET! AND IF YOU NEVER PAY IT BACK WE'LL CALL IT SQUARE JUST THE SAME!

I'M ON MY WAY TO THE FAIRMAY CLUB COSTUME DANCE AND THERE'S A TAXI! CAN I DROP YOU OFF ANYWHERE?
YES! I'LL TELL THE TAXI DRIVER WHERE TO LET ME OUT!

WHY, IT'S CARLO PARMENTIER, THE FAMOUS ACTOR!
WHAT AN ORIGINAL IDEA FOR THE GUEST OF HONOR TO COME IN A TRAMP COSTUME!
MY NEW YEAR'S RESOLUTION IS: NEVER JUDGE IN HASTE——EXCEPT KINDLY! I'VE DONE MYSELF A FAVOR BY TRYING TO DO ONE FOR SOMEONE ELSE!

HAROLD TEEN

THEY'S A REASON FOR ME BEING SUCH A HOT CHIMNEY — YOU SEE I COME FROM A LONG LINE OF GREAT NECKERS AT LONG ISLAND!

LAMBIE - PROMISE LOLLYPOPSIE HE CAN HAVE TH' FIRST KISS AT TH STROKE OF TWELVE

?

UH! HUH!

COM'ON BEAN! DO YOUR STUFF! THAT VANISHING AMERICAN AIN'T GONNA BE TH' FIRST BOZO TO KISS LILLUMS IN 1930! COME ON BRAIN! PERK!

MAY I SEE YOU AT TWELVE SHARP, LILLUMS? YOU HAVE NO IDEA WHAT A SURPRISE IS IN STORE FOR YOU!

SO SORRY, "PRESSY" BUT, I'LL BE BUSY!

I MIGHT OF KNOWN SHE WOULDN'T SHAKE THAT HAY SHAKER - BOY! I GOTTA WORK FAST - IT'S FIVE MINUTES TO TWELVE!

LISSEN! THERE'S A BIG BULLY IN TH' WASH ROOM ABOUT TO POP YOUR BELOVED COUSIN!

OH! YEAH!

HUH? UH? - ARE YOU ALL RIGHT HORACE?

GIVE A LOOK! AIN'T I SITTIN' PRETTY?

BONG! BONG! BONG!

WONDER WHERE SHEIKIE IS - IT'S TWELVE O'CLOCK AND THE NEW YEAR IS HERE!

FIRST COME! FIRST SERVED! HAPPY NEW YEAR!

SMACK!

UPSTART!

FLOP!

WHO IS IT? GOOFY? A TOWEL, QUICK! I CAN'T SEE!

DISGUISING HIS VOICE

COME ON - I'LL TAKE YOU IN TH WASH ROOM!

IT'S COLD IN HERE! IS THIS TH' WASH ROOM?

HOL' STILL - YOU'LL GET RELIEF IN A MINUTE!

HAPPY NEW YEAR! WHEEE

Reg. U. S. Pat. Off.; Copyright, 1929, by The Chicago Tribune.

CARL ED

BETTY

By C.A.Voight

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—HOW WHERE IS BETTY AND THE REST OF 'EM? —I'VE LOST 'EM IN THE CROWD COMING OUT—
—OH, HERE YOU ARE MR. DE PESTER —WHERE'S EVERYBODY?
—I DON'T KNOW MRS. BLUNTCH—I HAVEN'T SEEN 'EM—
—WELL, LET'S GO TO WHERE YOUR CAR IS PARKED —WE'LL FIND BETTY AND MR. BLUNTCH THERE
—YES, THAT'S THE THING TO DO.

—AH, HERE'S THE CAR BUT, THEY'RE NOT HERE! —WE'LL HAVE TO WAIT MRS BLUNTCH!
— HUMPH! THAT'S JUST LIKE BLUNTCH TO GET LOST WITH A PRETTY GIRL!
—WELL, WE WAITED AN HOUR, I GUESS THEY COULDN'T FIND THE CAR AND WENT HOME ON THE TRAIN — HUMPH!! WAIT'LL I SEE BLUNTCH—
— WE'LL SEE 'EM AT THE COUNTRY CLUB FOR DINNER—WE'RE MAKING GOOD TIME, THE OLD BUS IS SHUFFLING RIGHT ALONG — THAT BAD KNOCK IN THE MOTOR WE HAD COMING UP HAS DISAPPEARED ENTIRELY

NOT HERE?
—NO SIGNS OF 'EM! — WE'LL SIT HERE AND WAIT! — THAT BLUNTCH GIVES ME THE MOST HORRIBLE TIMES!
LESTER!
ALMA!
BETTY!
—WELL, MR. BLUNTCH, EXPLAIN YOURSELF!! WHERE HAVE BEEN ALL THIS TIME!!?
—NOW SWEETHEART—WE WAITED FOR YOU IN THE CAR FOR HOURS — THEN DECIDED TO DRIVE HOME AND THAT BUM MOTOR OF LESTER'S WENT DEAD, YOU KNOW HOW IT ACTED GOING UP AND SO—
?
— ER MY MOTOR? ???
E.A. Voight

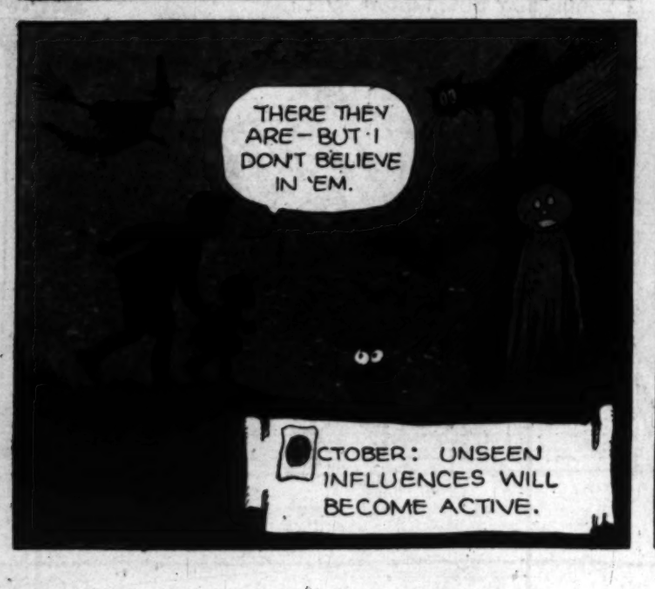
DECEMBER 29, 1929

GASOLINE ALLEY

DON'T SPANK ME, UNCLE WALT.
YOU THOUGHT I WAS GOING TO FORGET IT WAS YOUR BIRTHDAY, DIDN'T YOU!
FEBRUARY: BEWARE A FAT MAN WITH A FORELOCK

EXPECT MINOR DISTURBANCES.
HERE'S A D AND TWO C'S. I THOUGHT YOU WERE GOING TO HAVE MORE A'S THIS TIME.
I THOUGHT I DID, UNCLE WALT MAYBE TEACHER MADE A MISTAKE

WHY SKEEZIX, WHERE IS YOUR RAIN COAT?
IT WASN'T RAINING AN' I FORGOT AN' LEFT IT AT SCHOOL. AUNTIE BLOSSOM
APRIL: ALL SIGNS POINT TO A WET MONTH.



MERRY CHRISTMAS CHILDREN. I MUST BE GOING.
DECEMBER: AN OLD GENTLEMAN WITH LONG WHISKERS WILL ENTER YOUR LIFE AND LEAVE IT AGAIN.
WHERE'S UNCLE WALT? SANTA CLAUS HAS GOT HIS SHOES ON!

Los Angeles Times Sunday Magazine
December 29, 1929.

December 29, 1929.

Los Angeles Times
SUNDAY MAGAZINE

STARTING THE
NEW YEAR RIGHT

"My dear! I've lost another pound!"

JOHN ESTEVEN...P. G. WODEHOUSE...CLIFFORD McBRIDE...FANNIE HURST

Lovely Lilies of Japan Graces for Your Garden

These giant oriental blossoms of rich hues and wondrous fragrance afford an atmosphere of beauty and elegance that nothing else can give. They will rear their exquisite forms on stems 3 to 5 or 6 feet tall during June and July. They are easily grown and admirable for planting under trees or in shady beds, borders or nooks.

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The Los Angeles Times is gaining circulation at a faster rate than any other California morning newspaper. This new circulation, like the rest of The Times circulation, represents the highest possible type of newspaper coverage, namely, regular subscribers who receive their newspaper by carrier directly at their home.

Los Angeles Times

PRACTICAL RECIPES

NEW YEAR'S CAKES

4 cups Globe "A1" Flour
½ teaspoon salt
2 teaspoons baking powder
3 tablespoons caraway seeds
1 cup butter
1 cup sugar
1 cup cold water (about)
2 tablespoons lemon juice

SIFT THE FLOUR, measure and sift again with the salt and baking powder, add the caraway seeds and mix well. Cream the butter with the sugar, add the lemon juice, then stir in part of the flour mixture with a little water until all of the flour mixture is used with just enough water to make a stiff dough. Turn out on a floured board and roll out to half-inch thickness, cut into three or four inch squares, flute edges of squares by pinching with fingers, prick tops with a fork, place on buttered tins and bake in a quick oven for about 20 minutes or until lightly browned.

64 Page Recipe Book Free
Write Globe Mills, Los Angeles, for your copy

BLUEBERRY FRITTERS

1 cup Globe "A1" Graham Flour
½ teaspoon salt
1 teaspoon baking powder
½ cup sugar
1 egg
½ cup blueberries
½ cup blueberry juice

TURN the blueberries into a strainer to drain. Thoroughly mix the graham flour with the salt, baking powder and sugar. Beat the egg, add ½ cup of juice drained from the berries, add the well-drained berries, add the flour mixture and mix well. Drop heaping teaspoons of the batter into a frying pan containing two or three tablespoons of hot fat (not too hot, as the fritters burn easily) and turn to brown both sides. Dust with powdered sugar, or serve with maple syrup or lemon sauce.

GLOBE "A1" FLOUR

FOR EVERY BAKING PURPOSE

Los Angeles Times

A HOME-COMING DILEMMA

An Episode in the Married Life of Helen and Warren

By Mabel Herbert Urner
Creator of the "Helen and Warren" Characters

THE first day home!
Always this end-of-the-trip dejection.

Shrinkingly Helen gazed about the dismantled library. The depressing bareness of curtainless windows, rugless floors, paper-swathed lamps and vases.

Where to start? The maid not coming till tomorrow—

"Ink all dried up," grumbled Warren from the desk. "How am I to fill my pen?"

"I'll get some," hurrying out to the musty gloom of the pantry.

A rusty splutter from the long-unused faucet. Letting it run on the ink-clotted stand. Climbing to the top shelf for the pint bottle.

Winding the kitchen clock. Its throaty tick reanimating the stale stillness.

The ironing board, the vacuum, the clothes hamper—The strangeness of the familiar!

Their glamorous trip to Russia now but a dream. This the reality—humdrum reality!

"You makin' that ink?" an impatient shout from the library.

"Just a minute, dear," back with the paper-wiped stand. "Careful, it's full."

A shrill peal shattering the Sunday-morning quiet.

"Who can that be? No one knows we're home."

But a nervous premonition as she tok down the receiver.

"Hello . . . Why, how are you? . . . Yes, late last night . . . Oh, you're in town . . . No, of course not. We'll be glad to see you . . ."

"That Carrie? Let me talk to her," Warren dropped his pen.

"She's rung off. They'll be here in half an hour. Dear, it's the same thing every year! If she'd only wait till we're unpacked!"

"Why should she?" always alert to his sister's defense. "Now you're not to hand her one of your frosty receptions. Mighty nice of 'em to drive in."

"Yes, of course!" starting the get-straight flurry.

"See if the old box is working, crisped Warren, as she tore the sheathing papers from the radio.

"You try," stuffing them into the waste-basket. "I haven't time now."

Hastily unswathing the floor lamp. A gaunt skeleton with its naked bulbs.

Unpinning the cheesecloth from the mantel girandoles. Her blurred reflection in the filmed mirror. Standing on the trunk to wipe off the dust.

"Dear, help me! Take those suit cases into the bedroom. And empty that basket."

"Huh, Carrie knows we just got back," still at the unresponsive radio. "Never mind how the place looks—darn sight more important how you treat her. Hello, there they are now!"

Switching off the squawking radio, he strode to answer the clamorous bell.

A babble of greetings. Helen dutifully presenting her cheek to her sister-in-law's peck. Stooping to kiss Bobbie. Responding to Lawrence's cordiality.

"We can't stay long," Carrie breezing into the library. "Going to Lawrence's mother for dinner. Don't sit there, precious!" dragging Bobbie from the window seat. "Your clean suit—"

Gingerly brushing the slip cover before sinking on the couch.

"Well, how'd you find Russia? Must've had some lively experiences."

"Oh, we loved it!" glowing. "The nicest people—so kind and friendly! And they're doing wonderful things for the children."

"Goodness, Helen, you sound like a real Bolshevik!"

"Not quite," grined Warren. "Neither of us cut out for a Communist. But it's a great country. And they're doing some darned interesting things—"

"Pettie, keep away from that trunk! Any trouble with the secret police?"

"Carrie's had you in the salt mines of Siberia!" chuckled Lawrence.

"Busk! Treated as well as in any country, with less gyppin'—and no tippin'! Try one of these," proffering his cigarette case. "Soviet Specials!"

"Why, you can get those here!" deprecated Carrie. "How are the shops? You must've got some gorgeous things—awfully cheap."

"Well, if there's anything cheap in the U.S.S.R.—we didn't strike it. Food about the same as here, clothing a whole lot more."

"Oh, I mean antiques! Bobbie, that dirty floor—now look at your suit! They say the old nobility sell things on the street—for almost nothing."

"None of that now. But Helen spotted a place—government commission shop where they still had some stuff."

"What did you get?" leaning forward eagerly. "Anything really good?"

"Why not trot out your Russian loot, Kitten? Want me to lift that tray"

Helen obediently burrowing in her tightly packed trunk.

Every year the same ordeal! Before she had time to unpack—forced to drag out her purchases for his sister's critical inspection.

Opening her box of treasures. The steel-studded Circassian belt, that ikon, the silver snuff box, the precious bead bag, that old crested binding—

"Oh, where did you get this?" Carrie pouncing on the bag. "Such fine beads!"

A panicky premonition. But no, surely she couldn't expect that! Over a hundred rubles—sixty dollars. And worth much more! Really unique—

Get out the presents now—before any too-obvious hints.

"Here, Carrie, the bedroom slippers you wanted. I hope you like them."

"Did I say slippers? Oh, thanks, they're very nice," a perfunctory glance at the fine inlaid morocco. "But this bag!" unclasping the antique silver top.

"Yes, Bobbie, I'm coming to your present," ignoring the significant ecstasies. "Oh, here's something for your daddy."

Lawrence's soothing appreciation of the dull silver military brushes.

"I got those in Leningrad. Russian boar bristles—the best in the world."

"Well, you certainly came back pro-Russian!" Carrie scrutinising the brushes. "After the things one hears—"

"Yes, from people who've never been there! If you really go yourself—"

"Nothing so remarkable about going to Russia!" witheringly. "But I suppose we'll hear nothing else from now on—"

Burying her flush in the trunk. Carrie sure to disparage any enthusiasm!

Just enough truth to hurt. Perhaps she did talk too much about her travels! But she had loved Russia! And they were so maligned. Eager to put in a good word.

"I'm mad about this!" Carrie preening before the mirror, the bag on her arm. "Isn't it much too large for you? Better sell it to me!"

"Why, I—oh, I couldn't do that!" stammering. "I'd rather not—"

"Why not? You can find another—you go over every year."

"What's all this?" Warren looking up from the toys.

"Oh, I adore this bag! I'm trying to persuade Helen to let me buy it."

"Buy it!" he snorted. "Well, I should hope not!"

A poignant pause. Helen unhappily conscious of his coercive glare.

"How about it, Kitten?" at her prolonged silence. "If Carrie's so keen on it—Got a couple of bead bags, haven't you?"

"Why—why, yes," crimsoning. "I'll gladly give her any of the others."

"You don't have to give me any!" devastatingly.

"You can gun up another next year," prodded Warren. "Something to hunt for."

"I'm afraid I'll never find one like this! But of course, I'll—"

"Oh, if she feels that way—I wouldn't think of taking it! No, it's quite all right," with maddening condescension. "Come, Lawrence, you know how your mother is when we're late."

"Where's my box top?" shrilled Bobbie.

Helen glad to hide her flaming embarrassment in an under-the-couch search.

Lawrence trying to cover his wife's frigidity. Inviting them for next week-end.

A murmured "Hardly be straight by then" excuse.

At last the welcome clang of the descending elevator.

Back to the library. In grim silence, Warren settling down with the paper.

Helen at the streaked window. The familiar view a tear-and-dust-filmed blur.

The getting-back reaction depressing enough. And now this humiliation—

Always Carrie put her in the wrong! Always making her feel so small!

Gulping back a throat-tightening lump, she turned from the window.

That tissue-wrapped package on the couch—

"Now what?" Warren scowled up at her exclamation. "Those slippers? Too bad she forgot 'em. I'll drop 'em at Lawrence's office tomorrow."

"You think she forgot them?" tensely.

"What then? See here, what're you drivin' at?" belligerently.

"It might be another hint—to send the bag instead!" reckless now.

"Huh, Carrie never dreamt of such a thing!" he bristled. "Because you've got a scheming mind—needn't think she has! Wasn't hinting, anyway. Wanted to pay for it, didn't she?"

"Couldn't you tell that was just a pretense? Didn't you know—Oh, you never see through her!" passionately. "Here, you can give her the bag!"

"What's the bright idea?" a disgusted punch of his paper. "If you were going to come across—why all the preliminary fireworks? Had to make yourself look cheap—"

"Oh, you just won't understand—the way she was taking advantage!" quivering helplessness. "With you there to force me—"

"Now nobody's forcin' you into anything!" savagely. "If you feel so sore about it—keep the blame thing!"

"No, not after all this—I'd never enjoy it," a tremulous glance at the treasured antique. "It's spoiled for me now."

"There you go—puttin' on your martyr role!" his scathing contempt. "Act like you were partin' with the crown jewels when you cough up anything for my sister. Well, do as you darn please—but sign off the sob stuff. I'm fed up with that bloomin' bag!"

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CONTINUED FROM PAGE 19

CARE OF THE BODY

never giving the little one an opportunity for its own body to function.

She came to me with what seemed a hopelessly constipated baby. After making diet corrections and giving a few other bits of advice, I sent her home and told her to ignore baby completely for three days.

Within twenty-four hours she joyously telephoned that baby had had her first natural bowel movement since birth.

In addition, there are several other things which the mother might do.

An hour before the second, third and fourth feedings, give baby as much freshly prepared, sweet orange juice, diluted half with distilled or boiled water, as she will take. For the next feeding she should take fig juice, prepared by soaking the unsulphured grade of Black Mission figs in cold water for about twelve hours.

Do the same with either the unsulphured or unprocessed prunes, peaches or apricots.

Instead of rationing the fruit juices as is the vogue of many physicians—stuffy on purpose—it is the custom to give as much as the child will take in a twenty-minute bottle feeding.

All of the fruit juices are thoroughly laxative, alkalinising, healthful and beneficial. However, they should not be given at the same time as nursing but should preferably precede nursing by at least one hour.

As to the physical habits of the child, has the band been removed from the abdomen?

If not, why not?

When full healing of the umbilicus has occurred, there is no further danger of hernia. Then there is no further necessity for an abdominal band.

Has baby been trained to sleep on her abdomen?

This is a big help toward overcoming constipation.

Is she allowed her free perods of nudity irrespective of sun baths?

All children, in the warmth of their own cribs and rooms, should be allowed several free periods of nudity during their waking hours. Then they can kick, push, squirm and twist—their exercise for the performance of satisfactory bowel action.

Turn baby on her back—then on her "tummy." She will push her knees in. She will push her feet under her and stretch out.

Then help her in addition. Give her exercise. Bring the knees backward to touch the chest. This also helps the rectal muscles to protrude. Frequently she will expel gas. If, perchance, all of these measures fail, there are still others.

Buy an infant's syringe for babies of this size and age—the smallest. Remove the nozzle from the bulb. Lubricate it with any household vegetable oil or vaseline. Insert it into the rectum. This acts as a rectal dilator.

Under no circumstances should you use the finger. An infant syringe will not do harm where the little finger might.

Rotate it gently. While it is in, with baby on the back, bring the limbs against the chest so as to protrude the rectal muscles again. Usually there will be an expulsion of gas at least and very often a natural bowel action.

Thus nothing has been introduced into the rectum—no poisons, no water and no laxatives. The rest of the digestive system has not been impaired and no harm has been done.

Should this measure also fail and baby has not had a bowel movement say, for at least forty hours, then start with a minimum quantity of water. Mothers would be surprised at how little water it takes—sometimes half an ounce and at the most one ounce. It is not that we want to wash out the bowels but rather that we desire to put barely enough water into the rectum to start natural peristalsis.

Incidentally, this hint should be valuable for the adults reading this—those who are addicted to the enema habit.

Anyhow, the measures I have presented above I have found, in a practice of many thousands of children, to be far more effective than any patent medicine or doctor's prescription known to me.

* * *

"Even Your Best Friend Won't Tell You!"

It is always the source of a "wise crack." The vaudevillians never fail to make use of it.

Like many other slogans of popular advertising, this is one used to sell a mouth wash for halitosis.

We could write an article around this phrase, make a nice humorous reading, perhaps get a smile or two from it and dismiss it. But it means much more to those suffering from halitosis, especially if they be young, female and otherwise charming.

It is a delicate subject, but since delicacy is not our forte but rather the frank exposition of physiological problems, we can attack the question at its roots.

What is halitosis?

In its broader sense, it is the decay and putrefaction taking place because of fermentation.

This, of course, does not answer your question as to what is to be done about it. We must get at the reasons in order to find methods for its solution.

I shall be frank and say that at least 90 per cent of all cases of halitosis come from the regurgitation of the gases from the gastrointestinal tract. Such gases force their way up through the esophagus, saturate the mouth and buccal cavities and create a permanent condition of bad breath.

The various mouth washes, tooth pastes and other deodorants merely set up counter odors or temporarily absorb the odors that are present. They have neither a curative effect nor do they get at the causes.

In short, the reason the breath is bad is because of stasis, poor elimination through the eliminative canals, constipation, the use of drugs, and, more than all other causes, combined, the stuff we put into our systems which we call "diet."

Halitosis comes, primarily, from the fermentation or retention, and, as a close second to that, from the inability of the stomach to take care of the huge quantities of food we put in at one time.

Our terrible conglomerations which make up the average menus complete the gastrointestinal picture.

I can conceive of nothing more dietetically atrocious than the current regulation meat-soup-potatoes-coffee-and-pie diet. It has no semblance of sense in combinations, in quantities, in its own make-up, in chemical balance or in basic nutrition.

Get rid of meats, white flour, coffee, desserts, greased foods, and so forth, and within a very short time the halitosis will take care of itself.

Get the bowels to move three times per day as they should so that outgo equals intake.

Stop taking medicines of any kind or description.

Next, ascertain if there are any local causes.

Have a dental X-ray made. It is not very expensive and should cost no more than five dollars, or at the most, ten.

Find out if there are any abscesses or pus pockets. If there are, see what the dentist can do to drain them.

Then correct the diet.

Massage the gums and do the various other measures I have so frequently recommended for this purpose.

Treat pyorrhea intelligently by means of diet, vigorous chewing and corrective dentistry.

If the tonsils are enlarged much can be done by squeezing the pus from them. This is done very well by the so-called finger technique with which the average osteopath or chiropractor is familiar and by means of which he obtains splendid success in unloading most of the pus from the tonsils.

It is generally not necessary to remove the tonsils.

Then practice good tooth hygiene.

Place more confidence in sound sense than in chemical concoctions.

Question

Is it a virtue
To assume a virtue,
If you have it not?
To play hero,
Feeling villain
In the plot—
Judas weak, Peter trembler,
Is to be a good dissembler
Better than
An honest man?

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CONTINUED FROM PAGE 18

CARE OF THE BODY

much-heralded returns have been their day.

specific "hokus pokus" magic procurable via the hypodermic needle.

I have a free leaflet on the subject of tuberculosis. It is available to anyone sending me a self-addressed envelope and a loose two-cent stamp. The leaflet goes into the question of what the dietetic and hygienic factors shall be much

Correct Posture
must start with your foundation "the feet."
Which Shape is Yours?

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A HOME-COMING DILEMMA

An Episode in the Married Life of Helen and Warren

By Mabel Herbert Urner

THE first day home! Always this end-of-the-trip dejection. Shrinkingly Helen gazed about the disrepaired library. The dreariness pervaded the whole house. Warren prodded the fire. "Something to hunt for." "I'm afraid I'll never find one like that! But of course, I'll—" "Oh, if she feels that way—I wouldn't

Los Angeles Times
SUNDAY MAGAZINE
Los Angeles, Cal. December 29, 1929

Seen from the Green Verdugo Hills

A Page conducted by—

John Steven McGroarty

The other day, or maybe it was a day or two before that, when we dragged the big mail sack up through the fragrant trails of the chaparral to our little high house in the hills, we were greatly disappointed in its contents. It seemed that almost every letter that the sack contained uttered either a protest or a complaint, or both.

The Humble Task can Often Be Exalted

We don't think that in all the years that the Synagogue has been in existence we have ever opened up such a disappointing letter sack.

To be sure, we have to admit that some of the complaints and a few of the protests were fairly well grounded. Some of the writers of the letters appeared to have had such runs of ill luck and poor fortunes that we scarcely had the heart to scold them. But, for the most part, the protests and the complaints were wholly without warrant.

You see, the way it is, there are some folks who will growl and grumble unless everything is always going their way. If they have a bilious attack or bet on a dog fight and lose, or if a black cat crosses the road when they go out in the morning, or they meet a red-headed woman, they rail at the fates and shake their fists at the stars.

Take for instance the letter from a certain woman, who must be of Samaria, complaining that no one was willing to give her an opportunity to express herself in literature and art—stupid, hard-boiled publishers refusing to print the pieces she wrote for them and to put them in books—and that she has had to resort to taking a job at household kitchen work to make a living.

Here is a woman whose notion of life is gnarled and twisted to a pitiful degree.

Among other books that kind friends have sent to us to put on the shelves in our little high house in the hills—books to take the place of the old books that were destroyed by fire—there is one which relates the sayings of a man who was called Brother Lawrence. A man who was a lay-brother in a monastery of learned friars, but whose tasks were to do the work of the kitchen, to peel the potatoes, to be the scullery man, to get up early and start the fires going, to wash the dishes and mop the floors.

Well, this Brother Lawrence formed the habit of realizing that wherever he was and whatever he did he was always in the presence of God. And so, being in the presence of God, he felt that he needed to have a watch on his tongue and to keep sentinel over the thoughts in his mind and heart.

God is here in this kitchen, Brother Lawrence would say to himself. God is watching me and everything I do. He knows the thoughts that are in my mind and in my heart. I must be careful. I must be respectful and not offend God by anything that I say or do or think.

And it seems that after long practice of this rule God used to like to come into the kitchen where Brother Lawrence worked. The Lord God of the Ages would step down from His golden chair and sit on a rough stool in the kitchen with Brother Lawrence. And they would talk to each other—Brother Lawrence talking to God, and God talking to Brother Lawrence.

The end of it all was that the cheerfulness, the contentment that was in the heart of Brother Lawrence spread throughout the whole monastery. The learned friars envied him because he was so close to God. Because he was so familiar with God and talked with Him face to face in the kitchen. The friars would leave their books to throng in that kitchen so they might also feel the presence of the Creator.

Now, sad to say, in our far-flung Synagogue there are many scoffers. We love them, scoffers though they be. And when we see them sitting back under the far rafters instead of coming up to the high seats of the Synagogue where the saints sit, we say to ourself that some day the scoffers will also stand before the Gates of Jehoshaphat and talk to God about the way their thoughts were.

If they are honest in their beliefs, if it is their conscience to think as they do, then even the scoffers need have no fear. God is just, and He is merciful. He will not hurl headlong into the blazing pits of hell any man who follows his honest convictions, no matter what they are. And yet, here is this little life that we have to live on earth, and it can be made so much happier by thoughts that are sweet and gentle than it can ever hope to be made by these acrid thoughts of distrust and scorn that fill the scoffers' minds.

We can't all be as good and as holy as Brother Lawrence was, but we can learn from his life a lesson that ought to help us to stumble less on that rugged road we are all destined to travel between our cradles and our graves.

It is not likely that very many people have noticed Sister Katherine B. Hopkins sitting in a quiet corner of our vast Synagogue every blessed Sabbath morning.

The Many Wonders that She Has Seen

Indeed, we had never noticed her ourself until just lately when she handed us a poem that she had written and which we would gladly read in the Synagogue were it not for the fact that it is a somewhat lengthy poem and would take up perhaps more time than is allowed to us.

And you would like to know Sister Katherine Hopkins. She is over ninety years of age and can no longer see to read. But her mind is still as active as radio and as quick as a steel trap. And the way that she takes her seat in the Synagogue every blessed Sabbath morning is that she has somebody read to her this poor blundering page. That's the only way anyone can sit in the Synagogue. They must either read this page or have it read to them.

And Sister Katherine was telling us in her poem of the wonders that she has witnessed during her ninety years of life. She speaks of the marvelous progress science and invention have made since she was a baby in her cradle—all those wonderful things that are so familiar to us now and that we wonder at no longer, but take for granted.

In the poem Sister Katherine goes over the long list, and in one of the stanzas of the poem she says:

"Cars on railroads never ran
Before my ninety years began,
Now they'll take you anywhere
Very rapidly and with care."

No, sir, when Sister Katherine was young there was no such thing as a railroad. There was no such thing as a kerosense lamp, even. They had no telegraph then, or telephones. And certainly they never dreamed of airships and radio.

What we were thinking over when we read Katherine's poem was that if all the people in the world living now were to be taken out of it, leaving Sister Katherine alone, and then suddenly a new population would appear which would have to begin primitively as our forefathers did in the Stone Age or back of that, and Sister Katherine were to tell them of these things that we have now and that she saw and made use of, what a wonder she would appear to be.

We don't think for a minute that anybody would believe her even though she were to swear to it all on her Bible, and yet it would be true. We hope Sister Katherine will live still many more years. There is no reason, if she takes good care of herself, why she should not live at least fifty or sixty years more. And at the end of the next fifty years we reckon she will see a lot of new wonders that will be perhaps greater than the wonders she has already seen.

She will doubtless see, among other things, almost the complete conquest of physical diseases. No doubt that the terrible maladies that afflict the flesh like cancer and tuberculosis will be unknown among the human race fifty years from now.

And there was a man telling us the other day that before long there will be an invention perfected which will be something like a little tin match box that you can put in your hat and carry around with you wherever you go. And that simply by taking off your hat and pressing a button in this little box you can see where your wife is and what she is doing and who she is with. And, more than that, the danged thing will tell you what she is saying and thinking about. The man who told us about this didn't say that a woman could have the same thing and carry it in her hat and work it on her husband the same as he would on her.

We hope not. The way it is, women already have too many privileges that are denied to men.

The way we came to be thinking about it was that we were out on the desert. And it was night.

Whoever has been on the desert at night knows how much brighter are the stars in the desert sky than they are anywhere else. And how much nearer they seem to be.

Where It Would Seem Heaven Must Be

Well, we wondered then, as we have wondered many a time before, if it might not be possible that God keeps His promised heaven upon one or more of those great stars that one sees in the desert sky.

It is nothing less than an instinct in man to look up when he thinks of heaven. The primitive peoples in all ages located their heavens somewhere among or beyond the stars. And we Christian peoples always say "up in heaven." It is somewhere in the skies.

Now, not even the most learned astromomers can tell you how many universes there are beyond those they can see through their telescopes. Universe after universe that stretch away into boundless and endless space. Great suns and great planets without number that we can sense but cannot discern.

But these glorious shining planets that we can see with the naked eye—might it well be that it is upon one or more of them that God keeps his heavens?

If so, in the life that is to be, when our disembodied spirits are free to master space, perhaps we shall go from one of these bright stars to another searching out and visiting old friends as we were wont to do here on earth going from one country to another.

Autumn Sunshine

Hot sunlight in the city square
Streams through the trees and scatters
Golden leaves about the men
Who, autumn-like, have come to rest them there,
Golden brown and dry, but bright today,
As somehow shedding back this noonday's cheer;
Like fountain, dove, and flower they drowse and smile
On all who pass this way.

NANCY YERKES.

CONTINUED FROM PAGE 30

CARE OF THE BODY

as is the vogue of many physicians—usually an ounce—it is my practice to give as much as the child will take in a twenty-minute bottle feeding.

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As to the physical habits of the child, in short, the reason the breath is bad is because of stasis, poor elimination through the alimentary canal, gas, saturate the mouth and buccal cavities and create a permanent condition of bad breath.

The various mouth washes, tooth pastes and other deodorants merely set up counter odors or temporarily absorb the odors that are present. They have neither a curative effect nor do they get at the causes.

In short, the reason the breath is bad is the voque of many physicians—usually an ounce—it is my practice to give as much as the child will take in a twenty-minute bottle feeding.

All of the fruit juices are thoroughly laxative, alkalinizing, healthful and beneficial. However, they should not be given at the same time as nursing but should preferably precede nursing by at least one hour.

As to the physical habits of the child, in short, the reason the breath is bad is because of stasis, poor elimination through the alimentary canal, gas, saturate the mouth and buccal cavities and create a permanent condition of bad breath.

The various mouth washes, tooth pastes and other deodorants merely set up counter odors or temporarily absorb the odors that are present. They have neither a curative effect nor do they get at the causes.

CARE OF THE BODY

CONTINUED FROM PAGE 30

STOMACH and INTESTINAL AILMENTS, also

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much-heralded serums have seen their day.

Thousands of patients have submitted. Relative statistics have been gathered and then, with no exceptions, the purported remedies fall into oblivion.

With the advent of the germ theory, with its great popularity and with the discovery of the type of bacteria associated with tuberculosis, we have seen the rise of a newer method of treatment.

In line with the theory that most diseases are caused by germs and that most germ diseases will have either an antitoxin or a serum, an amount of experimental trial and error work, vaster than any that has preceded it, has been done on this hypothesis.

Countless thousands of patients have been injected with live and dead bodies of the bacillus tuberculosis.

Various modifications of the treatment have been used as well. Injections with dead germs and live germs, cooked germs and baked germs, pickled germs and poisoned germs, germ extracts and germ filtrates, have been tried.

Of course, statistics are summoned to their defense. Process so-and-so was tried on so many thousands of patients and such-and-such was the recovery. A contrast is made, of course, with process this-and-that, with such-and-such a mortality and recovery.

Enthusiasts for one system or another have urged the universal adoption of their particular system of bug-feeding hypodermically injected until the practice has virtually spread over the entire medcal globe.

The general idea has been in vogue for about twenty odd years. Today, however, the older methods are rapidly in the decline. Many of the very best specialists of the old school who have given countless injections of bugs in every form have been thoroughly reconcilied to the views "Care of the Body" has espoused ever since we have written on the subject.

We have vehemently reiterated that the germ treatment of tuberculosis as well as other diseases is futile and in many instances positively dangerous. The truth of the assertion is rapidly being born out.

The up-to-date textbooks are treating such germ injections with more and more skepticism.

"Care of the Body" readers should know and understand that most of the work and treatment along this line have been experimental and observational. Few of us want to lend ourselves to such experiments. There is not sufficient data or accumulation of evidence to justify the assumption that a cure rests in any form of such injections.

Hence, it is necessary for those suffering from tuberculosis to learn what the hygiene, discipline, diet and mode of living shall be for their particular case. In this field, alone, will they find a panacea for their troubles—not in any specific "hokus pokus" magic procurable via the hypodermic needle.

I have a free leaflet on the subject of tuberculosis. It is available to anyone sending me a self-addressed envelope and a loose two-cent stamp. The leaflet goes into the question of what the dietetic and hygenic factors shall be much more thoroughly than I can do in a brief article such as this.

• • •

Constipation in Infants

Riverside, Cal.

Dear Dr. Lovell:

I am writing you in regard to my baby. She is bothered with constipation and has been almost since she came home from the hospital. Her bowels never move naturally. We have to give her enemas all of the time.

Our doctor told us to give her milk of magnesia but I don't like to give it to her if I can help it. Now we have to give her about two teaspoonfuls to do her any good.

I wonder if you can give us a list of some fruit or vegetable juices that would be better for her as I don't like to give her medicine unless it is absolutely necessary.

The baby is two months old now. She is a nursing baby and seems to be all right in every other way. She weighed six and one-half pounds when she was born and now she weighs nine pounds and three or four ounces.

If you can give us any help along this line it will surely be appreciated.

A READER

The questions asked in the above communication are really among the most important that face mothers in the health problems of their little ones.

Far too often hospital routine is such that babies form habits of constipation practically from the day of their birth.

Feeding is given too soon. The milk comes in too fast. Ice packs, calomel and many forms of emergency treatment are resorted to. The results are a poor quality of milk and a constipated baby.

Then the mother leaves the hospital. Perhaps the nurses gave an enema on a definite schedule to save the bother of bathing and napkining. Perhaps the suppository habit was started in the hospital. Who knows?

Everything depends upon the hospital and the nurses.

Anyhow, the mother has a constipated baby. When she goes home, she, herself, is constipated. She has done nothing but lie in bed for two weeks. She has had no exercise, has eaten heavily and usually has taken laxatives. Hence, her milk is constipated.

Truly—here is a handicap from the very beginning—a handicap that is really serious and must be overcome.

The thing of primary importance is to feed an anticonstipation milk.

In this case, as in many others, the mother is nursing her baby. She has enough milk but is she consuming the fruits and vegetables in sufficient quantity herself?

The chances are she is not.

The vitamines and roughage should be had through her milk—not through the baby.

In addition, there are some corrections she should make in baby's regime as well.

If the child is on a three-hour schedule, it should be changed to four and five feedings per day.

Then the mother should get an acute attack of "do-nothing-itis" as against the "do-something" ideas from which most of them suffer.

"Baby has not had a bowel movement for twelve hours!"

Well, what of it!

"Oh, but it's terrible!"

Then they give milk of magnesia, castor oil or something else similar to that. That is the trouble.

Usually, if the mother would only wait for a few hours longer, baby's digestive system would function of itself. But the enema habit relieves mother's mind, giving her the sense that she has "done something" even though a better knowledge might have told her to do nothing but wait.

If baby develops no negative symptoms such as fever, vomiting, regurgitation, excessive colic, excessive restlessness, and so on—that is, if baby is, to all outward appearances "a good baby" and her body functions well, I see no reason why we cannot, under such circumstances, let her go for as much as forty-eight to sixty hours uninterfered with by drugs, enemas, or what not. Nine chances out of ten this will be enough to restore normal function.

Recently I had a case of a very intelligent mother—one of my prize patients—who also had the "do-something" mania. She had a beautiful child but habituated it to two enemas per day.

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WHAT'S NEW IN SCIENCE

Conducted by **Ransome Sutton**

"Caltech's" High-Power Electric Laboratory Is Solving Problems for Commerce and Industry — New Facts About Moon Discovered by Joint Body of Experts — Is Light Waves or Streams? Disease From Wild Rabbits, Communicable

What Is Light?

IS LIGHT composed of infinitesimally small particles, or "photons," radiated by suns and stars and incandescent bodies, or is it merely a wave motion in ether? Dr. Albert A. Michelson, Nobel Prize winner, thinks he has proved the wave theory." If light consists of waves," he declares, "then its speed should be greater in air, or in a vacuum, than in water or any other fluid. Experiments show that light does travel faster in air, and in a vacuum, than in water, thus vindicating the wave theory."

On the other hand, Prof. Arthur H. Compton, also a Nobel Prize winner, claims to have proved by photo-electric effects that light consists of streams of photons. "Our best suggestion is," he says, "that it moves like sheets of drops in a rainstorm. And the fundamental things can now be reduced to three: the proton, which is the heart of the atom; electrons, which are the hands of the atom, and the photon, which is the life of the atom . . . The photon is a corpuscle of light which acts as a projectile."

Our Pumice Moon

JOINTLY and separately three distinguished doctors of highly specialised learning—S. B. Nicholson and Edison Pettit of Mt. Wilson, and Paul S. Epstein of Caltech—have just diagnosed the condition of our pockmarked moon, and they find it afflicted with a frightful case of chills and fever. During its day, the surface sizzles, whereas at night it turns icy cold. Using special instruments, such as moon thermometers and thermocouples, attached to one of the big telescopes, Drs. Nicholson and Pettit learned how rapidly it heats when the sun comes up, and how rapidly it cools when the sun goes down. Then Dr. Epstein, experimenting on the conductivity of various materials, learned that pumice, the granular, honeycombed residue of lava spume, responds to sunlight and shadow in the same way.

Tularemia

UNLESS hunters look out they may have to learn the meaning of this disease. It is carried, says W. M. Dickey, State Director of Public Health, by wild cottontails. If you handle wild bunnies, wear rubber gloves, the director warns.

However, tame rabbits seem to be immune. Also beware of ticks, we are told, "for these insects transmit the disease from infected rabbits to human beings." Rabbit fever is a more serious affliction than it sounds. There is still another rabbit disease—coccidosis. But Dr. John F. Kissell, professor of parasitology in the University of Southern California School of Medicine, is getting close to the cause and cure of it.

The Lengthening Span of Life

ANALYZING longevity records, statisticians have concluded that the span of human life increased from thirty-five years in 1800 to forty-one years in 1880. During the next ten years, human expectancy rose to forty-four years; by 1910 it had risen to forty-eight years, by 1920 to fifty-one years, and now the average is said to be fifty-six years in England and fifty-eight years in the United States.

Carbon Atom Double?

Two California scientists, Dr. Arthur S. King of the Carnegie Institution of Washington, and Dr. Raymond T. Birge of the University of California, heated carbon electrically in a vacuum to a temperature of 5000 degrees; then discovered in its spectrum an unknown band. This strange band is explained, they say, by the presence of a twin, a sort of two-in-one kind of atom.

Atoms have always been supposed to be singular in form.

Model oil-storage farm showing miniature lightning bolts being on strategically located lightning rods.

"CALTECH'S" 1,000,000-VOLT LABORATORY

BEFORE Alessandro Volta produced and measured a current of electricity, the only animals capable of generating enough of Franklin's "electric fire" to kill a man lived in tropical waters. It was an eight-foot eel, the Gymnotus electricus, having batteries in its head and tail, which could discharge a series of shocks, some 450 volts at a time. In the electric chair 1800 volts are used to kill. The eel kills on the installment plan, whereas man kills quickly.

Ten years ago, when Dr. Royal W. Sorensen of the California Institute of Technology proposed a 220,000-volt plant, capable of transmitting 1,500,000 kilowatts 1100 miles, scientists smiled, because no one but Jove had ever hurled thunderbolts that far.

Now Sorensen is smiling. For, thanks to the co-operation of the electrical industry, he serenely presses buttons which control lightning produced in a 1,000,000-volt laboratory.

Asked what this Jovian establishment means, calmly and confidenly he condensed a terribly technical story into a few simple sentences, which give a vivid view of what's new in electricity. "We use the laboratory to teach high voltage technique to students," he said; "also to demonstrate long-distance transmission to interested organizations, like the demonstration we gave for the Amateur Radio Relay League recently. As people are becoming more and more concerned in power development, we occasionally give public demonstrations. Moreover, the laboratory is a workshop for members of the staff, under the direction of Dr. Millikan, as when Dr. Lauritsen was working on the 1,000,000-volt X-ray tube. On one occasion we canned lightning, which produced a wild electric storm for a motion picture company. The laboratory is in constant operation—most of the time making tests, commercial as well as scientific. It is well to note, however, that in these days there is no distinct boundary between electric science and business. The problems overlap. Insulation, for instance, is undergoing improvements constantly. Every line of the Edison Company, carrying 15,000 volts or more, use more than a million insulators, and a single defective insulator may temporarily put the whole transmission system out of service.

"Another thing: you've seen those tall, tower-like lightning rods on oil storage farms, haven't you? In this laboratory we placed models of the storage farms, then discharged artificial lightning from artificial clouds, and wherever it struck—and it frequently struck where you'd least expect—we located the rods. So you see this 1,000,000-volt laboratory is working, not simply for the sake of science, but for the sake of mankind. It's one of Southern California's best assets."

The demonstration given the Radio Relay League, to which Dr. Sorensen makes reference, was attended by about 500 young men from everywhere between Seattle and San Diego. For about three-quarters of an hour, that 1,000,000-volt laboratory looked, felt and smelt like Jupiter's workshop.

Talkie Troubles

LIKE a newborn babe, talking motion pictures are still in the lisping stage. In hundreds of laboratories, however, experts are trying not only to take the trouble out of the actors' voices, but to take troubles out of the air also. In the physics department of the University of Southern California, Prof. V. J. Meyer is working on ways and means "to supplement talking pictures, phonograph records and radio broadcasting with artificially produced sounds, such as train whistles, animal and bird sounds, airplane motors, explosions, running water, winds, thunder, fires, ocean breakers and stampedes." All such sounds, he has discovered, can be created in studios without the interference of outside sounds. But will such segregated sounds ring true?

Home Again

TWO members of Caltech's faculty have returned from scientific expeditions. Dr. Robert T. Moore, professor of zoology, explored the tip-top of Chimborazo, where the ice age still lives in gleaming glaciers, and also the Sangay volcano, known as the "Flaming Terror of the Andes," whose crater is 17,464 feet high. Dr. Frederick Leslie Ransome, professor of economic geology, rambled all around Africa, studying kopjes, faults, rifts and archean formations, all of which formed a part of Gondwana Land—the motherland of modern continents. These modern Marco Polos are compiling their discoveries.

Snow Flakes

IN A LABORATORY of the University of California at Los Angeles, Prof. John Mead Anderson waves a wand, or at least it would have been called wand-waving a few years ago, and amid humid air snow flakes form. It took many years of experimentation, however, for him to learn how to artificially transform moisture into these fairy-like crystals.

Oil From Sand

CANADIAN ingenuity, backed by the Grand Trunk Pacific Railroad and W. C. Laughlin, an American mining engineer, spins oil out of oil-bearing sand by means of a centrifugal machine which works like a cream separator. The process pays, we are told, almost as well as pumping. And sand is cheap compared with the cost of wells.

Old engraving of lunar "landscape" made from telescope observation, suggesting a likeness to pumice consistency.

Questions

1. To what branch of the animal kingdom do insects belong?
2. Are all insects bugs?
3. How many subclasses of insects are there?
4. Are centipeds and millepeds insects?
5. Are mites, ticks and daddy-longlegs insects?
6. Do spiders and flies have the same number of legs?
7. How many wings have flies, fleas and mosquitoes?
8. How do the antennae of moths and butterflies differ?
9. Are there as many Anthropoda as all other animals combined?
10. How do insects reproduce?

Answers on Page Twelve.

UNCLE ELBY LOSES A BIT OF SLEEP

PILES
Fistula

POOR ELIMINATION
Is the cause of colds, flu and most all diseases

CONTINUED FROM PAGE 27

CARE OF THE BODY

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movements of the bodily processes. Inactivity, a diminution of the natural motivating force, vibration—motion. In diseased conditions we find an interference with the normal physiological processes—a lowering of tonus—a sluggishness, congestion, stasis. These are primarily a diminution of the natural processes, have as their fundamental

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foods with little or no attention to the problem of mastication.

These are some of the main reasons why our "tum-tums" "go bad." But, in addition, we must not overlook the mechanical phases—the necessity for a good mechanism by means of which we can fulfill good health habits.

We may want to change our table manners, but if we lack the wherewithal—sound teeth, free from defects—our attempts to accomplish the correction are failures.

Hence, we must know more and more about the methods of keeping a sound set of teeth to do the essential work for us.

Dr. Henry Barsha of this city makes a splendid contribution to this department in the following article on the subject:

"Very few people realize the important role that a complete masticatory apparatus plays in the attainment of good health.

"The mouth of the adult normally contains thirty-two teeth, sixteen in the upper arch and sixteen in the lower arch. The anterior or front teeth are called the incisors, or cutting teeth, which enable us to cut our food, thus preparing it for the next process, that of chewing. The bicuspids and molars crush and pulverize the food. The canine or eye teeth were primarily used for tearing food, but in this civilized age the use of knives and forks has usurped their function. It may be observed that the canine teeth of animals are still sharp, since they must use these teeth for tearing and cutting their food. The bicuspids and molars are used for crushing, grinding and pulverizing the food. They also extract the important juices of food. The reader will observe fine grooves on the grinding surfaces of these teeth. The juices that are extracted from the food are forced into the mouth through these grooves, or sulci.

"The greatest function employed by the teeth is to mix properly the pulverized food with saliva. This fact is of the greatest importance since the first step of digestion starts in the mouth. Food that is not thoroughly masticated, or only partially chewed, cannot be properly digested.

"The saliva contains enzymes and ferments which help in the digestion of starch, and unless starchy food is thoroughly mixed with saliva, digestive disturbances may result.

"Besides the digestive function which saliva possesses is the mechanical function of moistening and lubricating the food as it passes into the stomach so that it may be beneficially digested.

"These facts should impress the reader with the absolute importance of maintaining a sound dental apparatus.

"All lost teeth should be replaced by modern sanitary fixed or removable bridges, partial plates, or a complete set of plates where necessary.

"After teeth are extracted the remaining teeth in the arch have a tendency to migrate, thus weakening the contact points between the teeth. This condition permits food to be packed between the teeth and interferes with the proper mastication. An additional harmful result is the retention of food in these unnatural spaces, which, when the food ferments, produces acids which may affect the enamel of the teeth, and in time create cavities in the adjacent teeth.

"After a tooth is extracted and the gum has properly healed, artificial teeth should be placed in the space in order to prevent the adjoining teeth from moving.

"Where two or more teeth have been extracted, great care must be observed by the dentist to preserve all the natural anatomical markings that the original teeth possessed. This is of extreme importance since many harmful results can be produced by the inaccurate replacement of artificial teeth. Pain may be produced in the joint between the lower and upper jaws, known as the temporo-mandibular joint. Neuralgia and ear-ache are often the result of careless dentistry in replacing lost teeth.

"Many people go through life chewing on one side of the mouth. By doing this they not only overwork the teeth on one side of the jaw but they also injure their health by not properly chewing their food. When people are deprived of a full set of teeth, there is a tendency to bolt the food, since chewing with an incomplete set becomes tiresome.

"Many cases of digestive disturbances have been traced to improper mastication of food. In these days of speedy and hectic living, there is a tendency to eat hurriedly. This habit is especially indulged when there are insufficient teeth to chew the food comfortably.

"The reader should realize that the teeth play a great part in the maintenance of a healthy body, and that a sound dental apparatus is vitally important in the preservation of good health."

• • •

Tuberculosis

Although the great white plague is not taking the toll it did in former years, it is still not a negligible factor in our health problems. It has long been superseded by much more deadly diseases such as carditis, kidney afflictions and so on. But for those who have it, and for those who are susceptible to it, much more information is desired than is found in current health education.

As I write this article, the city is in a campaign for the sale of Christmas seals. Hence, considerable attention has been focused on the subject of tuberculosis.

There are few groups of patients who are as well educated on the subject of their troubles as is the average tubercular. He knows more about his disease than the sufferer of stomach trouble, kidney disturbances, or in fact, any other ailment.

This is due partially to the large amount of publicity the topic is receiving and secondarily, to the fact that the symptoms of the disease are not so devastating as to prevent the accumulation of data and knowledge about it by the one affected.

The necessity for prevention of tuberculosis is, of course, fairly well understood. There is little disagreement on its root causes—the aspects of poverty malnutrition, poor hygenic environment and the general miscellaneous conditions of life which foster and develop it.

Of course, we all recognize the great advantage of a wholesome environment—a damp-free climate—one that is free from extremes—and a good psychology. It is rather on the technical phases of medicinal treatment that enlightment need be shed.

Too much experiment and guess-work too much trial and error formulae are being forced upon the patient who accepts it unknowingly.

As we look at the history of the treatment of this disease during the past fifty years, we see a vast conglomeration of the same trial and error method.

Countless methods have arisen only to fall. Everything from tar emulsions to

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I hear evidence everywhere of the wonderful work you are doing and from my personal observation the nature of your work has been most satisfactory and I realize you are building an institution of which this city can be proud. A. A. MILLER,
Manager Publicity Dept. Long Beach Chamber of Commerce.
You have done wonders for me. I cannot thank you sufficiently. DR. A. N. WARD, A. M., D. D., LL.D., Pres't Western Maryland College
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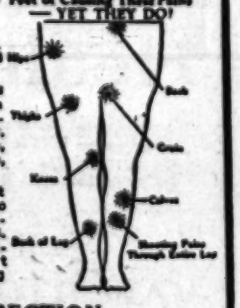

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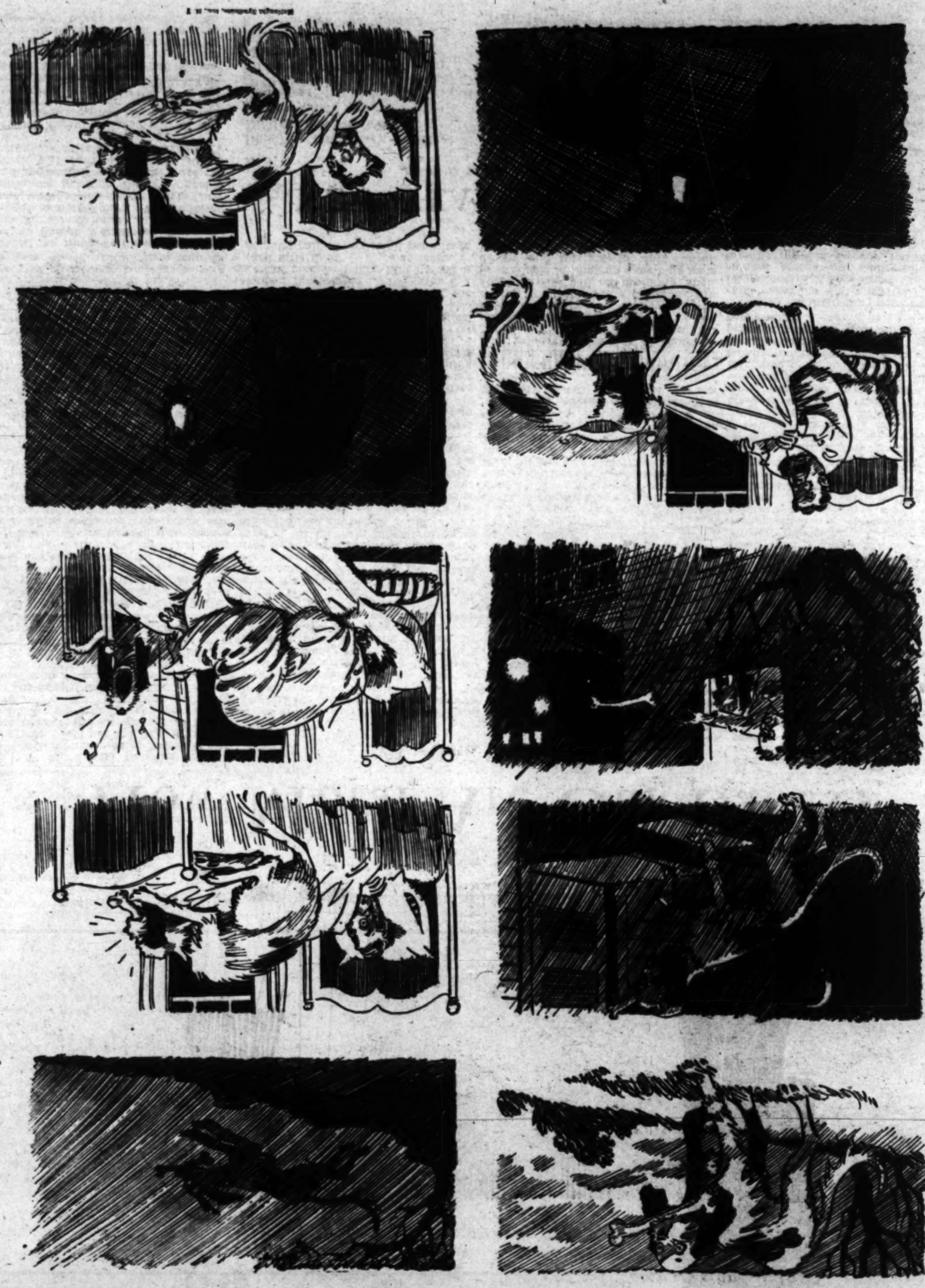

Uncle Elby Loses a Bit of Sleep

By Clifford McBride

Los Angeles Times Sunday Magazine

What's New in Science

Conducted by **Ransome Sutton**

"Caltech's" High-Power Electric Laboratory Is Solving Problems for Commerce and Industry — New Facts

INVITING THE
DEAF
to Hear With the
WESTERN ELECTRIC
AUDIPHONE
People troubled with abnormal hearing

CONTINUED FROM PAGE 28

CARE OF THE BODY

"Keep A Clear Head"
free from
Sinus Trouble and
CATARRH
Do not wait until mucus, in head or throat, poisons your system or makes you deaf.
Neglected head colds often lead to

chewing with an incomplete set becomes tiresome.

"Many cases of digestive disturbances have been traced to improper mastication of food. In these days of speedy and hectic living, there is a tendency to eat hurriedly. This habit is especially indulged when there are insufficient teeth to chew the food comfortably.

"The reader should realize that the teeth play a great part in the maintenance of a healthy body, and that a tenance of a healthy body, and that a

foods with little or no attention to the problem of mastication.

These are some of the main reasons why our "tum-tums" "go bad." But, in addition, we must not overlook the mechanical phase—the necessity for a

been the greatest exponents of physical culture.

"Greek civilization represents the finest achievement in artistic and cultural attainments. The Greeks were known to the world as excellent examples also of physical cultural development. They found their art in the natural life, and they gave expression to these fine feelings in a physical way through the natural rhythmic movements of their bodies.

"The environment of the average Greek of that period, however, was quite different from that of the average person for whom Care of the Body is written today. Our well-known average characters, the Tom Smiths and the Mary Joneses, made famous by Dr. Lovell's articles, are subject to economic and social stresses and strains which constitute a tremendous diverting influence away from the natural life. It remains for the physical culture, the medical gymnastics of today to compensate for this lack of natural physical activity with its attendant devitalizing and degenerating effects upon the health of the individual.

"There is no doubt that the greatest benefits to be derived from physical culture come from its application through the medium of play. 'Tom' and 'Mary' find little time for play because of the necessity of earning the daily bread and of attending to important social duties.

"Furthermore, our 'Miss Jones' and 'Mr. Smith' have allowed themselves to become too run down and depleted in physical and nervous energy to be able to plunge into the carefree abandon of play without bringing on actual physical harm. That is why physical culture today has taken on the aspect of a well-defined and carefully administefed science.

"Carried out along these lines, physical culture should know no limitations of age or ill health. For instance, at our Physical Culture Center in Los Angeles the age range of those taking active treatment is from three to as high as eighty-seven years. They include men, women and children in varying degrees of health and ill health.

"What do we, who are making a science of physical culture, mean by the term? We mean a carefully studied and scientific simulation of the natural rhythmic harmonies of the processes of the human mechanism. All life, all life processes, have as their fundamental, motivating force, vibration—motion. In diseased conditions we find an interference with the normal physiological processes—a lowering of 'tonus'—a sluggishness, congestion, stasis. These are primarily a diminution of the natural movements of the bodily processes.

"The blood stream, the activating agent of life, functions fundamentally as the carrier of both health and disease. If the blood stream is clean, pure and active, that is, if there is a brisk circulation—if there is an interchange of gases in the lungs—if there is a proper filtration of poisons in the kidneys—diseased conditions will be minimized. If there is proper digestion and absorption, the blood stream, acting as a nutritional vehicle, will distribute the health-giving sustenance to the tissues in every part of the body, thereby insuring growth and health. If there is prompt and adequate elimination of and hence the bodily resistance to dispoisons, cleanliness of the blood stream ease will be enhanced.

"Poisons retained in the system through improper functioning of the vital processes are absorbed by the blood and carried and distributed to the various tissues. Wherever there happens to be a mechanical weakness, these poisons find a fertile field for easy invasion and infection. Even the endocrine secretions, since they are carried in the blood stream, are rendered less potent because of the counteracting influence of these systemic poisons also circulating in the blood.

"We, therefore, can readily realize how important to good health is the function of elimination.

"Physiologically speaking, there are only four channels for the elimination of poisons from the human system. These are the colon, the kidneys, the skin and the lungs. The normal functioning of these organs of elimination depends to a large degree upon physical culture activity.

"The healthy action of the colon—peristalsis—is a muscular action. The capacity for the exchange of gases in the lungs—the elimination of carbonic acid gas and the absorption of oxygen—depends upon the health of the lungs, which is greatly enhanced through the medium of physical culture, through deep breathing, and chest and lung development. The burning up of poisons in the system and their excretion through the thousands of little pores on the surface of the body is most effectively accomplished through physical culture exercise.

"Perspiration can, of course, be induced also by artificial, mechanical means. But as far as the actual benefit derived is concerned, this method falls far short of the natural method through exercise. An analysis of the toxin content of perspiration induced by exercise and that induced by mechanical means (as the sweat cabinet, for instance) shows the former to contain a much greater percentage of poisons. However, the sweat cabinet has its place as a therapeutic agent acting as an excellent auxiliary modality.

"I do not wish to be understood as propounding the belief that physical culture is a panacea for all disease. Physical culture alone—just like anything else alone—is not a magic cure-all. However, I do hold that physical culture is a tremendously important factor in both the maintaining and procuring of good health, and should play an important part in every health program.

"We see an awakening to this fact all about us—even in the orthodox medical circles. During the recent epidemic of 'flu' the Assistant Surgeon-General of the United States Army, declared through the newspapers, that the way to prevent and to cure 'flu' is through proper exercise, diet and adequate relaxation. In the treatment of advanced cases of pneumonia, many authorities advocate the deep, physical culture type of breathing to prevent a sluggishness of the circulation in the affected tissues.

• • •

Chewing and Health

The chain of evils which leads to the ever-popular gastrointestinal troubles invariably starts with our habits at the table.

First, we eat too much. Then we complicate this evil with the way we eat. We fail to bite and to chew. We gulp our foods hastily. We follow hot with cold and cold with hot. We take a sip and a gulp, washing down our

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How Moral Are Our Babes?

By Alma Whitaker

NOW the annual statistics begin to roll in that we may review the closing year. And not the least interesting are those anent our "delinquent babes."

At first sight the figures appear alarming . . . 5021 delinquent youngsters in Los Angeles county alone . . . according to a report filed by the Juvenile Court and chief probation officer.

In this report we are told that 1156 girls were brought to the attention of the court for various offenses and all the rest, 3865, were boys.

On the face of it, this looks frightfully damaging to the boys, and would bear out the idea that the preachers have been all wrong in concentrating on the girls and blaming them for all the trouble.

But it is absurd to take these figures as meaning that our youngsters are rushing straight to the devil in large numbers. It isn't anywhere near as bad as that.

For instance, only seventy cases of girls between the ages of eighteen and twenty-one came to the attention of the authorities . . . and they were not necessarily hardened sinners. On the other hand 349 of the girls were just babes . . . between six and eleven years of age, and really we decline to believe that their sins could be very terrible at that age. In fact the majority of the girls were under fifteen years of age . . . and so many of them get to Juvenile Court through the faults of grown-ups, broken homes, jail-bird fathers . . . and for offenses that are annoying to grown-ups but not necessarily wicked in the sight of heaven.

So very often these lambkins of ours are more sinned against than sinning.

Then, too, when we dissect these figures, we find that traffic violations account for a huge total . . . twenty-five girls and 1209 boys. Well, now, of course, traffic violations are naughty and troublesome, but it is highly probable that Rhadamanthus, sitting in judgment on high, will scorn to list these against the ultimate salvation of our children's souls.

Perfectly decent grown-up citizens who run big businesses, hold office in our city government, preside on boards of great organizations, and even make uplift speeches, have been known to be traffic violators. They have even had to pay fines, and even go to jail . . . but when it's a grown-up no one thinks of dubbing them criminals, or even that objectionable word "delinquent." So if we are just average good sports and subtract the traffic violators, we promptly reduce that horrid total by 1237.

Under the heading of the "burglary cases" as appertaining to young boys—well, that sounds rather awful. But here again we find that many of them are rather cases of petty theft . . . stealing cigarettes and candy from stores, etc. Very wrong, of course . . . but the city boy is apt to steal cigarettes where the country boy steals apples, watermelons etc. And, dear me, if that comes under the heading of "crime," lives there a man who did not at some time in his life help himself to something that did not belong to him?

For that matter, see some of our respected citizens today who simply cannot resist stepping out of an expensive car and stealing oranges, grapes, fruit galore from unprotected orchards along the highways. Ask the ranchers . . . they know.

Since time began it has been understood that small boys find a certain amount of petty pilfering irresistible . . . whether it's mother's jam cupboard or sister's trinkets. When my small brother was seven years old, he fell in love with a damsel up the street and magnificently presented her with all my treasures . . . but the fellow is the father of five now and sits in majesty upon the local school board in his African city. He is also captain of the tennis club and of the volunteer fire brigade . . . even if I do recall mamma telling him he was a wicked little thief . . . at seven.

Actually only a very small percentage of those "burglary" charges against boys are of a serious nature . . . but they are all lumped together in a juvenile court report. I recall one youngster of eleven who got into awful trouble with the neighbors because he found an old piano box on a vacant lot and swiped a rug so he could play house and sleep in it. Well, that boy is a shining high-school scholar now and sings in a local church choir. But he was a "thief" at eleven.

So, considering the vast population of children we have in this great city, that report isn't so bad. The few really serious and shocking cases form a minute percentage of the whole.

Another interesting point is that 2626 of that alarming total are American children . . . when we do so love to blame the foreign population for so many of our sins. Only four little Jewish boys all told . . . and with the right mamma in control at home they need never have arrived in Juvenile Court at all.

But really now, when we consider that there are 284,965 children in the city schools alone . . . not the county . . . and a probable ten or twelve thousand college students . . . and then remember how few of those offenses should really come under the direful heading of a crime . . . can we honestly claim that the younger generation is going to the devil? Isn't it about time we left off libeling a whole generation and think up something more decent—and sporting—to talk about. What could be more unsportsmanlike than denouncing a whole generation . . . which cannot hit back . . . on such flimsy evidence?

Take the case of many of the girl "delinquents" . . . we find that the accusation against them is that they "are in danger of leading an immoral life." No one can decry good preventive work, but it isn't fair to confuse that situation with the actual offense.

Not a single girl was accused of manslaughter, murder, robbery, vagrancy or malicious mischief, or of using narcotics. Not one. Two boys were charged with manslaughter, which might happen to any of us these days, and one of murder. There were fourteen "robbery" cases among the boys, and thirty-one forgery cases. That's bad enough for all conscience, but set against the nigh half million children in the county, it is no evidence to condemn a whole generation on. They doubtless could make no better showing in those much-press-agented "good old times" . . . if they had kept statistics in those days.

As against that, high school principals everywhere will vouch for the fact that it is passing rare for a child to be expelled from a school these days for bad behavior, whereas in those "good old days" "expellings" were general . . . and one retiring high-school principal (Mr. Housh) once amused himself by naming numerous prominent men in this city today, who had once been expelled or suspended from school for very bad conduct.

Certain antinarcotic crusaders solemnly assure us that a perfectly frightful percentage of high school and college children are narcotic addicts. But they couldn't prove it on any statistics we have at present. They certainly escape the juvenile authorities very successfully . . . if there are any. My private opinion is that that is the wickedest and most untruthful accusation that has ever been brought against minors in any country anywhere . . . and I don't believe it.

A German company has been making trial flights from the Pacific port of Buenaventura to Bogota, Colombia, a dangerous trip over mountain ranges.

Eight types of toy pistols, which, with slight alteration, would kill a man, were recently confiscated in a London toy store.

NEW YEAR'S BELLS

By Belle Willey Gue

Ring the new year's greeting!
Ring the new year's bells!
Many a future meeting
Happiness foretells!

To the old year's sorrow
Murmur brief farewells!
Welcome to tomorrow!
Ring the new year's bells!

Unknown paths are beckoning,
Unknown scenes await,
Changes past our reckoning
Are marked out by fate.

Where time's golden hours
Weave their magic spells
Unseen grandeur towers!
Ring the new year's bells!

CARE OF THE BODY

By Philip M. Lovell, N. D.

The Necessity for Fluids

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SLEEP 8 hours tonight — BRONCHI-DIPUS — Sure Relief for Coughs — AT ALL DRUG STORES

CONTINUED FROM PAGE 26

CARE OF THE BODY

up the major portion of the average diet prescription for the treatment of stomach ulcer.

Recently a patient asked me why his doctor did not include lamb chops and pork chops on his schedule.

The only answer I could give him was that if the chop were minced and made into hamburger or perhaps "lamburger," it would no longer be a chop, and since a chop sells for much more than "lamburger" or hamburger, it doesn't pay to mince it. Hence it is not on the diet.

Rack my brains as I will, I still cannot see why the commonplace ulcer diet is made in this fashion.

Let us get away from prejudices and use a little common-sense reasoning as to the food principles, the pathology and the background or causes in an ulcer case.

Let us forget diet for a moment and go back to the causes of ulcer.

Does an ulcer come where the patient has three bowel movements per day? Does it come where the patient abstains from sugars, coffees, teas, smoking, alcohols and drugs?

No!

Does it come with greased foods, too much meat, fowl, fish, eggs, cakes, pastries, jells, jams, smoking, alcohols, worry, constipation, fermentation, gaseous distension and belching?

Yes!

Then our common sense should tell us that these are elements which must be removed.

The ulcer develops. We go to the doctor. He prescribes the diet I mentioned first. Little concern is given to the cause.

Perhaps an eggnog tends to ferment. Perhaps the gelatin made from slaughterhouse bones is not so good for constipation. But that doesn't matter! It is soft. That is the only thing with which we are concerned.

What a farce!

Then the doctor says, "if you eat coarser foods they will irritate." He gives you the illustration of a sore. If you put something coarse on that sore, it will hurt. If you put something soft on, it won't hurt!

Sounds plausible enough, but is it?

Have any of you ever pumped a stomach an hour or two after the food has been eaten? If you have, did you find the food hard or soft?

The name of the substance pumped from the stomach is called chyme. Its technical definition describes it as a semisolid material. It is halfway between a liquid and a solid. In half an hour to an hour, under normal digestive conditions, the foodstuff is made into a liquid.

Mechanically, the amount of physical irritation induced by coarse foods is negligible. I shall grant, however, that there is some. Is that any reason, therefore, to leave off the coarser green vegetables?

Most assuredly not!

Let us presume that the average patient suffering from stomach ulcer usually has poor teeth. I know this is true from a good deal of experience. Many have plates while practically all of them have never learned the "Care of the Body" "chew-chew-chew" habit.

Granting these circumstances, it is still easy enough to prepare the wholesome vegetables and other coarse food groups in a fashion adaptable for the ulcer patient. There are grinders and squeezers and cutters. They will cut the food so finely and so thoroughly that very little physical irritation is possible.

There is no justification for the failure of the consumption of natural foods, even in an ulcer case. On the other hand, don't be an extremist. If, for many years you have been accustomed to the meat-soup-potato-coffee diet, don't start in with a diet of fruits, vegetables, grains, and so forth. Compromise. Incorporate a little in the dietary.

Follow the tried and true principles of milk.

Give the stomach a rest.

Feed more frequently and take less—eat every hour or two, if necessary.

But the main thing is to get away from the old-school ideas that just so long as the food is mushy, soft or pasty, it is suitable for an ulcer condition.

Physical Culture

"Left — Right — One — Two — Three — Four! Arms Up—Raise! Inhale! Exhale!"

This is the popular concept of physical culture. It is like a dose of bad-tasting castor oil that is unwillingly swallowed by ever so many. It is work—a disagreeable task that perhaps the doctor has ordered or that you have convinced yourself will do you good.

It is unfortunate that this idea of physical training should be prevalent. The joy of a beautiful body is but slight compared with the greater joy of acquiring such a body.

The program of use is much superior to the idea of accomplishment.

Sports and the play spirit are perhaps the best exemplification of the joy of physical culture. But the therapeutic phase—the idea that here we have a powerful weapon for the cure of disease—this is something that must not be overlooked.

Consequently, we are very grateful, indeed, for the following article by N. P. Roe—a man who has been prominent for many, many years in physical culture circles—who has been before the radio for many years. He is the author of a number of treatises on the subject and is one who knows what he is talking about when he discusses this all-important method of getting well and keeping well.

Not only those who are athletic enthusiasts, but those who ail and ache should read Mr. Roe's splendid article which follows:

"Physical culture is among the oldest of the natural therapeutic agents known to mankind. It is a significant fact that those races of people who have made the greatest contributions to the cultural advancement of civilization also have

Pelvic Troubles

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Science Explains the Conservation of Youth *After 40!*

A WELL-KNOWN scientist's new book about old age reveals facts which to many men will be amazing. Do you know that two-thirds of all men past middle age are said to have a certain seldom-mentioned disorder? Do you know the frequent cause of this decline in vitality?

Common "Old Age" Symptoms

Medical men know this condition as hypertrophy of the prostate gland. Science now reveals that this swollen gland—painless in itself — not only often cheats men of vitality, but also bears on the bladder and is often directly responsible for sciatica, backache, pains in the legs and feet, and dizziness. When allowed to run on it is frequently the cause of cystitis, severe bladder inflammation.

65% Are Said to Have This Gland Disorder

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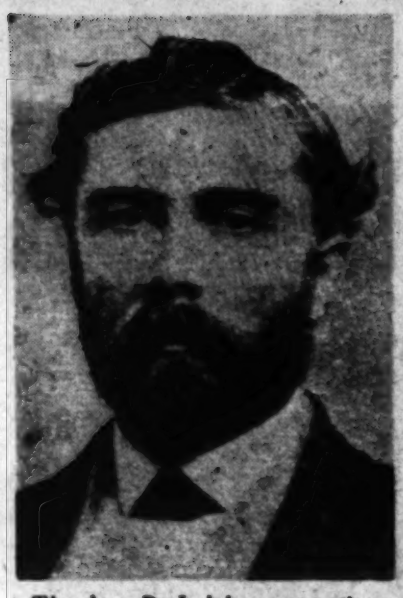
OUR ROOTS OF PROGRESS

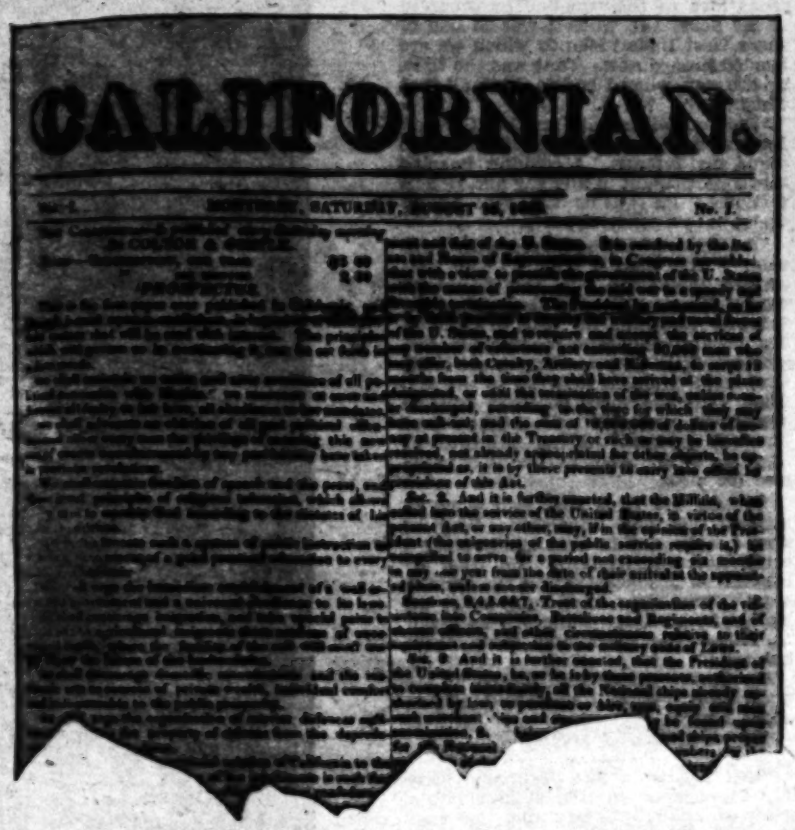
By G. Farrell

The Story of California's First Newspaper and First Railroad, Which Were Responsible in a Large Measure for the Miraculous Development of This Golden State



Theodore D. Judah, construction engineer of California's first railroad.

George T. Bromley, California's first railroad conductor.


CALIFORNIAN.

MONTEREY, SATURDAY, AUGUST 26, 1846. No. 1.

Facsimile of first page of the first paper ever printed in California.

THE decade between the years 1846 and 1856 bristled with events and achievements that heralded the real beginning of progress in California. In 1846 two happenings of importance stand out. In that year Americans supplanted the Mexicans in authority and the first newspaper in California was established.

In 1848 the magic cry, "Gold in California!" sped on its way to the four corners of the globe. The year 1849 saw the Gold Rush and the inauguration of a steamer service between New York and San Francisco.

In 1850 California was admitted to the Union. During the next year the Vigilantes organized in San Francisco and struck terror to the hearts of the evildoers. Then, in 1855, farsighted citizens began the construction of California's first railroad.

It was through the medium of the newspapers largely that the people of the world were acquainted with the advantages of life in California; then the railroads completed the good work by bringing them in in ever-increasing numbers.

California's first newspaper was established at Monterey in August, 1846, and the publishers thereof, Walter Colton and Robert Semple, go down in history as the fathers of journalism in this State.

". . . an emigrant from Kentucky, in a buckskin dress, a foxskin cap; true with the rifle, ready with his pen, and quick at the type case." Thus Colton described his partner, Robert Semple. Skilled in the odd combination of printing and dentistry, Semple arrived in California late in 1845 to begin a life that led to fame in other pursuits. Besides being remembered as one of the publishers of California's first newspaper, his name figures prominently in California history as a leader in the Bear Flag Revolt and as the president of the convention which met in 1849 to draw up a State Constitution.

Semple towered six feet eight inches above the ground. His height inspired a man named Blackburn to observe that Semple "had to wear his spurs in the calves of his legs to enable him to hit his horse's belly."

Colton, at one time a chaplain in the United States Navy, came to California with Commodore Stockton. After the latter was appointed Governor he made Colon Alcalde of Monterey. Colton is also remembered as the builder of the famous Colton Hall at Monterey and the man who empaneled the first jury to be summoned in California.

Colton and Semple formed their partnership in 1846, and on Saturday, August 15, in that year, the first newspaper in California came off the press, to be distributed among the eager citizens of Monterey.

The printing press was acquired by the Americans from the Mexican officials at Monterey, who, in turn, had bought it from one Augustin V. Zamorano. The latter had received the press from Boston in 1834. It was a wooden Ramage hand press, costing $460, and bearing evidence of being second-hand. Edward C. Kemble, who is said to have been more familiar with it than anyone else, remarked in this connection:

"We know not what relation its origin sustained to the Franklin press (in the Patent Office) at Washington, but the date at which our venerable California ancestor arrived on these shores and the years and hard service which it had evidently seen before it left Boston, justify the presumption that it came into existence not far from the locality and era in which the Franklin press labored. That it was a member of the same exclusive family is unquestionable."

That Colton and Semple had their troubles with the ancient press is revealed in the former's diary. Under the date of August 15, 1846, Colton wrote:

"Today the first newspaper ever published in California made its appearance. The honor, if such it be, of writing its prospectus fell to me. It is to be issued every Saturday, and is published by Semple and Colton. Little did I think when relinquishing the editorship of the North American in Philadelphia that my next feat in this line would be off here in California.

"We created the materials of our office out of the chaos of a small concern which had been used by a Roman Catholic monk in printing a few sectarian tracts. The press was old enough to be preserved as a curiosity; the mice had burrowed in the balls; there were no rules, no leads, and the types were rusty and all in pi. It was only by scouring that the letters could be made to show their faces."

On account of the scarcity of type, words were often contracted or purposely misspelled. There was no "w" in the Spanish alphabet and the publishers found themselves particularly short of that letter. Many times they were forced to substitute inverted "m's," or to join two "v's" or two "u's" to make up for the lack of "w's."

Colton's diary continues:

"A sheet or two of tin were procured and these, with a jack-knife, were cut into rules and leads. Luckily we found, with the press, the greater part of a keg of ink, and now came the main scratch for paper. None could be found, except what is used to envelop the tobacco of the cigar smoked here by the natives. A coaster had a small supply of this on board, which we procured. It is in sheets a little larger than the commonsized foolscap. And this is the size of our first paper, which we have christened the 'Californian.'

"Though small in dimensions, our first number is as full of news as a black walnut is of meat. We have received by couriers, during the past week, intelligence from all the important military posts throughout the territory. It reached the public for the first time through our sheet. We have, also, the declaration of war between the United States and Mexico, with an abstract of the debate in the Senate.

"A crowd was waiting when the first sheet was thrown from the press. It produced quite a little sensation. Never was a bank run upon harder, not, however, by people with paper to get specie, but exactly the reverse. One-half of the paper is in English, the other in Spanish. The subscription for a year is five dollars; the price of a single sheet is twelve and a half cents and is considered cheap at that."

The Californian was published at Monterey every Saturday until May, 1847. Colton sold out to Semple, and the latter transferred the publication offices to San Francisco. Merged with Samuel Brannan's California Star, a paper which made its first appearance in 1847, the old Californian became the California Star and Californian.

In 1849 the name was changed to the Alta California. The new paper became a daily and appeared regularly until 1891, when its publication ceased.

While California's first newspaper was establishing itself in San Francisco there came reports from Sacramento of progress in a new direction. On August 4, 1852, a company was organized by two brothers, L. L. and J. F. Robinson, to build a railroad between Sacramento and Folsom. Their object was to furnish transportation from the wharves at Sacramento to the mining region.

The promoters engaged Theodore D. Judah, a young man in his twenties, as construction engineer. After completing his work for the Robinsons Judah led in the movement for a transcontinental road. He surveyed a route across the Sierras and interested the "Big Four" of the Central Pacific, Stanford, Crocker, Huntington and Hopkins, in his plans. In 1863, when Judah was only thirty-seven, he was stricken with fever and died.

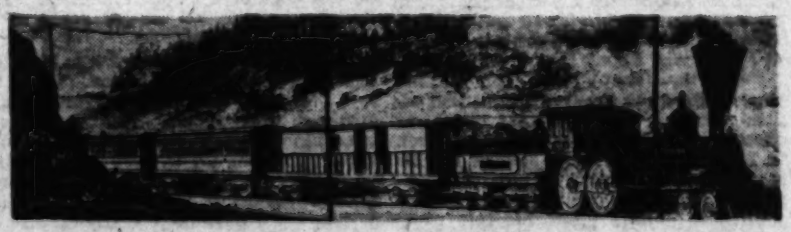
Considered in the light of present-day standards the Sacramento Valley Railroad, operating over the twenty-two and a half miles separating Sacramento and Folsom, was no remarkable undertaking. However, it was a beginning and a promise that reached fulfillment when, in 1869, the Big Four carried through to a successful conclusion Judah's plans for a transcontinental railroad.

When the Robinsons' company was first organized ten per cent of the stock, amounting to $5000, was paid in. The company was reorganized on November 9, 1854, and actual work of construction was begun in February, 1855. 1855. The first tie was laid in May and the first shipload of materials and rolling stock arrived from the East in June. The first train was placed on the track on August 14.

On Washington's Birthday, 1856, the road was completed. Its total cost was $1,568,500. The road was operated for nine years by the original owners and was then acquired by the Central Pacific.

George Tisdale Bromley, years later affectionately known as "Uncle George,"

(Continued on Page Twenty)



Sketch of train on the Sacramento Valley Railroad, 1860.

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CARE OF THE BODY
CONTINUED FROM PAGE 26

up the major portion of the average diet prescription for the treatment of stomach ulcer.

Physical Culture

"Left—Right—One—Two—Three—Four! Arms Up—Raise! Inhale! Exhale!"

This is the popular concept of physical culture. It is like a dose of bad-tasting castor oil that is unwillingly swallowed by ever so many. It is work—a disagreeable task that perhaps the doctor has

Pelvic Troubles
MEN or WOMEN
DR. WHITE has a book for MEN

Los Angeles Times Sunday Magazine

CARE OF THE BODY

By Philip M. Lovell, N. D.

Author of "Diet for Health" and "The Health of the Child"

The Necessity for Fluids

There are various conditions in the development of certain ailments where fluids in the system are of vital importance. Fluids ultimately help in the maintenance of normal tissue, in the building of blood, in the construction of lymph and in the normalizing of body metabolism.

The cells are made by the body. The fluids must come from without. Hence, when the system has suffered considerable shock—when there has been a great loss of blood—or during or following a fever—the necessity for fluids is apparent.

The general axiom in such conditions is "get fluids into the body by any possible means!"

In many instances of post-operative procedure, the patient receives an intravenous injection of water—a process known as hypodermaclysis.

In other words, where it is not desired, a favorite method in hospital procedure is to introduce fluids intrarectally. This is accomplished through the use of an ordinary syringe so regulated as to discharge single drops of water into the rectum at a rate capable of being absorbed.

For ordinary household use, such an arrangement may be made by means of a simple clamp attached to the tube. Test it out before inserting it into the rectum and arrange it where you desire to give the "Murphy drip," as it is called, so that it discharges one to three drops per second. This is about all the rectum can absorb.

I would recommend this in every case of shock, in nearly every type of post-operative treatment, in sunstroke, in heat prostration, in nervous prostration and during and after acute fevers.

Many doctors use a glucose mixture although it is my belief that a slightly sweetened honey and distilled water mixture is preferable.

It is a good practice during practically all cases of acute illness, with the exception, perhaps, of dropsy or of high blood pressure, to insist that the patient consume liquids by mouth as much as possible.

Sometimes plain water palls on the patient and if it be a child it is impossible to get him to swallow it. Then a number of inducements to take liquids may be tried.

Try sweetening the water with a small quantity of honey. Add a small quantity of fruit juice. A dilution of one part fruit juice to two parts of water will usually make the liquid much more palatable.

In other cases it is advisable to feed vegetable broths. They can be made both appetizing and delicious, at the same time furnishing the patient considerable alkalinizing material to overcome the customary acidosis of acute disease.

These are but a few suggestions which will usually fit the average case.

The important thing for you to remember is the great desirability of getting fluids of a harmless nature into the body at the time of acute illness. It doesn't particularly matter how you get it just so long as it is taken up by the blood stream which distributes it to the points most needed for the maintenance of good chemical balance.

• • •

Catarrh and Infection

The forerunner of serious diseases such as tuberculosis, chronic bronchitis, and so forth, is invariably catarrh.

Putting the analogy in different words, were we to take a given thousand patients who have tuberculosis, we would find that those who had catarrh of the nose, throat, sinuses and head before tuberculosis greatly exceeds the number who had no symptoms of catarrh at all.

It is not that catarrh is directly responsible for tuberculosis but rather that it is the forerunner in so far as it weakens the local tissues and favors the development of bacterial colonies.

A long-continued catarrhal process will generally produce a local intoxication highly favorable for the development of the tuberculosis bacillus, pneumococcus, streptococcus and similar germs associated with their parallel diseases.

This is merely a word of caution or warning, perhaps preventing the development of more serious diseases.

• • •

Edible Fruits

It is amusing to observe the prejudices exposed by many who represent to know diet.

Recently a mother who claims to have made a considerable study of diet came to me for general advice. In discussing certain phases of this subject, she exposed a number of erroneous ideas.

For instance, in feeding her little girl of four, she went through the laborious pains of first extracting the seeds from grapes before she would turn the grapes over to her little one. She also went to the trouble of extracting the seeds from the center of the figs she bought from the health food store.

She knew tomatoes were good for her child but not until she had extracted most of the seeds and much of the pulp through a colander would she give them to her child.

She gave several other examples of this practice but the few illustrations I have given are enough for you to understand the general idea involved.

Here was a case of a child having its full set of early teeth. It was capable of chewing, biting and taking care of food in its natural state. But, no, she wanted to "protect" the child.

What was there in tomato seeds, fig seeds and grape seeds that she need fear?

Nothing, except in extreme cases of disease.

Nature has made very wise provision for this form of coarse material.

True—most of it does not go into systematic nutrition. Practically all of it is discharged with the bowel wastes, but meanwhile, as it passes through, it has served a very valuable purpose.

An analysis of the bowel content of every sensible living individual will reveal that this material passes through unchanged. But far more important is its action in the digestive tube. It constitutes the roughage without which peristalsis would be difficult. It makes up bulk so vital toward the induction of good contraction.

A function which has often been overlooked, is literally the "scraping" process that is followed by coarse foods.

We must realize that the entire intestinal system is oftentimes lined with adhering mucus-like material. This is especially so when we have a history of laxatives behind us. Then regular pockets of decaying, putrefying material form in the intestinal crevices.

When a coarser cellulose material as evidenced by the skins of grapes, tomatoes, figs, prunes and other edible fruits comes in contact with the deposits which adhere to the intestinal wall, the accretions are loosened up and the intestine is thus thoroughly cleansed.

Not all of the food we eat is necessary for nutrition. Much of it is vital for the establishment of normal function.

With this in mind, we need not fear relatively harmless seeds such as are found in tomatoes, grapes, figs and similar fruits. The trouble involved in preparing these foods is in no sense worthy of the results.

Mothers, by understanding this, will give their children a better start in laying out a good health foundation.

• • •

Roughage and Ulcer

It would be amusing, were it not tragic, to analyze the why's and wherefore's of diet prescriptions in the average stomach ulcer case. There are barley gruel, rice gruel, mushy cereals, white bread, milk and cream, eggs, eggnogs, minced ham, minced bacon, minced egg, minced spinach, soups and broths.

What do you see that is common to every item I have mentioned on the above list? Is there a chemical similarity?

No.

Are they common in food principles?

No.

Are they of the same group or family of food—plant or animal?

No.

Then what is there which recommends these foods in an ulcer case in the average hospital clinical prescription?

Not a blessed thing except that they are soft, mushy, gooey, and pasty and involve no effort on the part of the one who takes them.

Yet, the items I have mentioned make

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drink with him or he would blow the—I believe he said the everlasting daylight—out of me, then and there. When the flash came again I saw that he had lifted the revolver. He informed me that I had always been a timorous little white-

Another One of O. Henry Memorial Award Selections

Hartman

Mr. Smith

By Lee Foster

IT WAS the second night out from New York, and the Tortola was tossing in a heavy sea—which is to be expected when one is in the latitude of Diamond Shoals, steaming southward in a small West Indian liner. The smokeroom was deserted except for the steward, a big Barbadian Negro, who was polishing glasses in the bar and crooning softly to himself. He had brought me a whisky and soda, which stood in a tall glass at my elbow while I wrote. As the vessel rose and fell the ice in the glass lurched gently.

Presently the windward door was tugged open, a blast of air charged in, and the door slammed shut behind a passenger who looked about uncertainly, braced himself, and started forward. He caught at my table to steady himself as another roll tilted everything to starboard. The woodwork creaked and eased itself, and there came the rattle of the steering gear. He hadn't noticed my glass, which his elbow struck and sent crashing to the floor. He was distressed by the mishap and profusely apologetic.

"You must let me order you another," he insisted.

"Won't you have one yourself?" I invited.

He seemed to hesitate as he caught the aroma of the spilled Scotch, and then reluctantly yielded. "It's Scotch, isn't it?" he appealed to me before giving the order to the steward, who had come forward to clear away the glass fragments. "I'm not much of a whisky drinker," he confessed, as if the prospective drink was not exactly to his liking. "And yet on one occasion, several years ago, I had to drink a very great deal of it." He seemed unhappy over the recollection.

He seemed an odd type, with every wish to be friendly but inhibited by a natural timidity and a punctiliousness of manner which was almost formal. A small-town college professor was my first guess. He was a drab little man, quite inconspicuous except for a luxuriant grayish-brown beard. He looked as if the fifty-odd years of his life had been spent in studious pursuits quite remote from all rude and bracing contacts with the world. But, as I presently learned, he had adventured about the world a good deal in his own queer fashion. He was a bird collector for the Smithsonian Institution and now on his way to British Guiana.

"My name is Smith," he informed me, and added, with an effort to be jocose, "I dare say you've heard it before."

Just then the steward set a tray before us, and Mr. Smith's glance, directed toward the glasses, became apprehensive. He lifted his drink, tasted it without enthusiasm, and then set it down.

"I've never developed any liking for this sort of thing," he confided, still apologetic. "Not that I have any compunctions about it or that it disagrees with me. Once, as I said, I must have drunk half a bottle of Scotch whisky at a short sitting. But I don't recall experiencing any particular effect from it."

When I ventured to smile he leaned forward very earnestly. "No, I'm quite serious. If I may judge from that single experience I doubt if liquor in quantity would upset me."

"Will you smoke?"

He brightened visibly at the sight of the cigars I drew from my pocket. "Now you're tempting me. My one vice." As he lighted a match, his eye fell to my sheets of manuscript. I'm afraid I'm interrupting you at your writing."

"It's nothing much. Just a story. I can get on with it tomorrow."

"You write—stories?" he asked. He seemed to evince an almost childish interest in the fact. "I've often wondered how you manage to think up stories—you people who make a business of writing."

"Well," I began lamely, "one gets hold of an idea or an odd situation and tries to make something out of it."

He nodded as if he understood, but I was confident that he didn't. I sensed in him that type of mind to which all things literary remain an eternal baffling mystery. But the sight of literature in the making—even literature of a sort—intrigued him. As he puffed his cigar to a glow his gaze lingered curiously upon my manuscript.

"I've often thought some writer could make a good story out of my name—Smith. There are so many Smiths. You might have two different men named Smith, and then have one mistaken for the other."

In his naive way he meant this to be helpful, and I could do no less than thank him for the banal suggestion. "Yes, there might be something in that," I agreed, but without enthusiasm.

For some moments we smoked in silence. The ship continued to roll, and the ice lurched softly in our glasses. He looked up at me once or twice as if about to say something but was too diffident.

"You know," he finally broke out, "that idea of the two Smiths occurred to me years ago when I was in one of these West Indian islands which we are headed toward now. That was the time, by the way, when I had to drink all that whisky."

"Did you fall in with another Smith?" I asked, for the whisky episode began to pique my interest. I couldn't imagine him a participant in any gay and riotous festivity. He wasn't the type to be drawn into a convival party.

"No, indeed," he answered with decision. "The man I fell in with was named Donaldson. In the island of Santa Clara. It's still untouched by tourists. No towns, no roads to speak of. It's mostly mountainous—volcanic formation. With deep ravines—great clefts that seem to reach right up to the sky, filled with the most gorgeous tropical vegetation you ever saw. Stupendous hanging gardens. Ferns growing as large as trees. And, naturally, a paradise for birds.

"It was the birds that had come to interest this man Donaldson. Why he stayed marooned in that lonely place I could never understand. He lived by himself, in a shack over on the farther coast. Time must have hung heavy on his hands. Perhaps that's why he began to notice the birds and study their habits."

Mr. Smith paused and looked at me uncertainly. "Shall I go on and tell you about him?"

"By all means," I urged.

"Well, to start at the beginning. One day there came to the Smithsonian a letter of inquiry. It was from this man Donaldson, and he wanted to know this and that about certain birds he had been observing. The letter was a little shaky as to spelling, but the questions were pertinent. It looked as if the fellow had got hold of at least two species we didn't know anything about. So I answered the letter, told him what he wanted to know, and after a while he wrote again. A sort of correspondence developed between us. He joked me about my name being Smith; asked if I resembled any of the other Smiths. So I enclosed a snapshot of myself and said I'd be pleased to have a picture of him.

"After a long while he replied. He said in his queer, jocular way that the only photograph of himself was kept where he couldn't lay hands on it or he would have destroyed it long ago, but if I would shave off my beard I might easily pass for him in the dark. Then he asked if by any chance I was a Smith from Ripton Valley in Vermont, which amazed me completely, for my family happened to come from that district. I could only figure it out that he had lived there once himself, and having known a lot of the Smiths in Ripton Valley he had spotted a family likeness in that picture of me. He was a sharp one. His observations of birds had proved that.

"Well, naturally, I grew interested in the fellow, and I decided to look him up if my duties ever took me down to that part of the Caribbean. And a couple of years later the chance came. The only port in Santa Clara was a straggling negro village, set among the usual cocoanut palms, in a little bay on the west coast. But there was a resident commissioner, to whom I presented my credentials, and he offered very kindly to put me up. There was really no other place to stay. Then I asked about Donaldson."

" 'Oh, that chap!' said the commissioner. He was a very correct British official, and his eyebrows went up at my question. 'I believe he keeps pretty much to himself on the other side of the island. You know him?' And then I explained about our ornithological correspondence. 'Fancy!' was his sole comment. 'I'll give you a note to the keeper of the lighthouse at Cap Indienne. He'll show you where Donaldson lives near by. And have him show you through the Cap Indienne light. It's the most powerful light for navigation in these waters south of Saint Lucia."

"But the repeated sight of the muzzle that blinding flare of light was enough

"Well, a week or so later I worked over to the other side of the island and met Donaldson. I had written him from Washington about my trip, but he didn't know just when I would turn up. So I gave him quite a start. He had come to the door of his shack for some purpose, not hearing my footsteps, and there we were suddenly face to face.

"He fairly jumped at the sight of me, as if I had given him the fright of his life. Suddenly he remembered. "You're Smith!" he exclaimed. He shook hands. "Come inside," he said, visibly relieved. He eyed the bulging pockets of my hunting coat. 'What have you got there?' he demanded, almost suspiciously. At the sight of my day's kill the uneasy lines in his face softened. He began to talk about birds.

"I stayed with him for a couple of weeks. He wouldn't hear of my going back to the other side of the island. And his bungalow was fairly comfortable if it was a make-shift construction on the edge of a tropic wilderness. He had lived there for several years in a queer, unbroken solitude.

"Even after two weeks of him he was still almost a stranger to me. My wife says I haven't the knack of getting acquainted with people. And there was something about Donaldson—I don't know. I guess we weren't exactly the same sort. But he knew every inch of that wilderness and helped me a lot in getting the particular birds I was after. He seldom spoke about himself. He was what you'd call tight-lipped. But I learned that he was a Canadian, grew up on a wheat farm in Alberta. Wilcox, the keeper of the lighthouse, who was Donaldson's only neighbor, didn't believe it. 'Anyone can see that he's an American, like yourself'—'But,' I argued, 'how can he be? His parents came over from Liverpool.' The lighthouse keeper only looked at me curiously. 'Come, now, aren't you a relative of his?' Which of course was absurd.

"What I did come to notice about him was a sort of uneasiness, as if he were always on guard against something. He seemed afraid of people, didn't want them to come near him. The result probably of living so long by himself. Once a month he went over to the other side of the island for his supplies. He said he was always glad to get back.

"Having me on his hands for a couple of week's necessitated an extra trip. It happened to be a day when a vessel was in port and a handful of tourists on shore. He had said he would not be back until after dark, but he must have made surprisingly good time, for when I returned to the cabin after a day's collecting by myself he had already been there and departed again. He had dumped down the supplies and scribbled me a note to say that some unexpected business had called him away. He might be gone several days.

"Toward sunset on the following day I was dressing some birds and working fast while the daylight lasted. But the sun dropped before I realized it, and the tropic darkness was around me like a shot. I lit a lamp—there was the merest drop of oil left in it—but instead of refilling at once I sat down again to my work. I grew completely absorbed in it until suddenly I became aware o

something she could not find the voice to impart to her mother. It was sufficient in the beginning just to stand off and secretly adore, and secretly, oh so secretly, hope and hope and hope.

And out of the hoping was to come this:

Precisely that had happened. Von Strohelm and Gluck had been married by a local magistrate. A thunderclap had descended upon the life of a narrow, pasty-faced little person known as Paula von Strohelm. A thunderclap that was to reverberate through a lifetime.

What happened subsequently came so gradually that it is doubtful if Gluck was completely of it until after the ceremony. At the end of the second year of this strange marriage, there was serving the street von Strohelm, not only the daughter who walked gaily in the wake of her magnificence, but the young Teutonic-looking husband, who had receded to successfully serve in his fantastic capacity as step-father. After all, he was only eight years the senior of Paula.

HOUSEHOLD HINTS

By J. Norman Lynd

WHEN THE ALARM CLOCK DOESN'T WORK, USE THE FLY-SWATTER
IN JUNIOR'S CASE, WHEN IT IS DESIRED TO STING WITHOUT BLISTERING, A FLY-SWATTER IS THE BEST INSTRUMENT
AND FOR A CHRISTMAS PRESENT—YOU WOULDN'T BELIEVE WHAT SOME GIRLS CAN DO WITH A CAN OF PAINT AND SOME RIBBON!
J. NORMAN LYND
A NOISKID SHOULDER STRAP CAN BE MADE BY TAKING A PAIR OF SCISSORS AND A RUBBER FLY-SWATTER AND --- OH, FIGURE IT OUT FOR YOURSELF!
FOR THAT AREA ON THE BACK THAT NOBODY BUT A CONTORTIONIST CAN GET AT
THE FLY-SWATTER MASSAGE WILL STIMULATE THE SCALP—AND MAYBE GROW HAIR—FOR ALL WE KNOW
SOMETHING TO CUT HIS TEETH ON --- SOME PEOPLE STERILIZE THEM

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Mr. Smith

By Lee Foster

IT WAS the second night out from New York, and the Tortola was tossing in a heavy sea—which is to be expected when one is in the latitude of Diamond Shoals, steaming southward in a small West Indian liner. The smokeroom was deserted except for the steward, a big Barbadian Negro, who was polishing glasses in the bar and crooning softly to himself. He had brought me a whisky and soda, which stood in a tall glass at my elbow while I wrote. As the vessel rose and fell the ice in the glass jingled gently.

For some moments he studied in silence the back of a man who sat at a table in the corner. Then he came over to me and said in a low voice:

"Dat man, suh, he's been sittin' dere for mo' dan an hour, jes' a-drinkin' an' a-drinkin'. Ah reckon he's mighty lonesome. Ah reckon he'd be mighty glad if you was to set down an' have a drink with him."

I agreed, but without enthusiasm. "Yes, there might be something in that." For some moments he studied in silence the back of a man who sat at a table in the corner. Then he came over to me and said in a low voice:

"Dat man, suh, he's been sittin' dere for mo' dan an hour, jes' a-drinkin' an' a-drinkin'. Ah reckon he's mighty lonesome. Ah reckon he'd be mighty glad if you was to set down an' have a drink with him."

I agreed, but without enthusiasm. "Yes, there might be something in that." helpful, and I could do no less than thank him for the banal suggestion.

December 29, 1929.]

Another One of O. Henry Memorial Award Selections

Hartman

of that revolver every time there came to drive me to any desperate step.

a strange man at the open doorway, looking in upon me.

"It gave me a queer start, for I had the feeling that he had been standing there watching me for some time. I couldn't make him out clearly, but I could feel—yes, actually feel—his eyes boring into me.

"You want Mr. Donaldson?" I asked. For a moment he didn't answer but just continued to eye me. 'Donaldson,' he repeated the name aloud to himself, then gave a sniggering laugh.

"I got up from the table to get oil for the lamp. With my back turned I was fumbling among packages on a shelf when suddenly he shouted:

"'Smith!'

"I fairly jumped at the sound of my name—it was like a pistol shot—and of course I whirled about in surprise. The fellow in the doorway seemed delighted with the shock he had given me. He laughed harshly, triumphantly, and advanced into the room. 'You know me?' I asked in bewilderment. 'Beard and all,' he retorted. I turned again to the shelf, but he stopped me sharply. 'What are you after?'—'Oil for the lamp,' I explained. 'No, you don't. Sit down!' he commanded, and he actually levelled a revolver at me.

"Well, naturally, I sat down. Very limply, as if my legs had sudenly given away. I admit I was scared. The fellow might be crazy. And that revolver glinting in his hands terrified me. I had never looked into the muzzle of any firearm from exactly that position. Meanwhile the lamp was flickering its last and the darkness deepening around us. It was creeping out past the Cap Indienne light to the open sea, where the day still lingered.

"I didn't relish sitting in the dark with a madman. The thought of that lamp going out seemed almost as terrible as the muzzle of his revolver suddenly spouting flame. I remonstrated: the lamp must be refilled. 'None of your slippery tricks!' he retorted curtly. He sat down at the other side of the table, with his right hand resting alert upon the edge. It held the revolver, which still covered me.

"The lamp guttered its last, with that hostile, mysterious presence growing even more menacing as it merged with the dark. And suddenly, like a flash of lightning, the whole room was illumined. It was the first flare of the Cap Indienne light, breaking out its powerful ray and sweeping the empty sea for I don't know how many miles. Donaldson's cabin, I should have told you, had a broad window from which you could look down upon a considerable stretch of the coast. The blunt promontory known as Cap Indienne directly fronted it. In that vast solitude the lightholse was like a gaunt, lonely obelisk, with a single fiery eye that revolved endlessly.

"For an instant the room was like day, and then we were plunged again into complete darkness. For twelve long seconds. During which the ray transcribed its vast circumference, and then, with startling suddenness, everything in the cabin once more leaped out into blinding reality. I can shut my eyes now and still see it all: the heavy round table at which we sat, the ancient chairs, the littered shelves on the opposite wall where were ranged some birds Donaldson had stuffed, looking down at us with headlike, unblinking eyes. Everything became visible for an instant and then vanished. Twelve seconds of utter blackness. Each time it seemed like an eternity before the flash came again."

Mr. Smith broke off and sighed over the recollection. He even drew out a handkerchief and passed it over his face.

"I never could tell you all the weird, insane talk that followed in that intermittent darkness. It seems now like nothing but a nightmare, quite incredible. I sat there in a cold chill, helpless to move, if I could have moved, while the light came and went, and that revolver continued to point at me. And with the growing certainty that he intended presently to empty its contents into my body. He had waited years for this chance, I gathered. He had been confined all that time in prison, for which apparently I was to blame, and there were others—a gang of ruffians, it seemed—who equally thirsted for my extinction. At first I thought that the fellow was drunk or out of his head. My own head was in too much of a whirl to get it all clearly. But after a while I concluded that there was really something in it. I must have a sort of double; there was another Smith, and down there in Santa Clara—of all places!—I had been mistaken for him.

"But my visitor was in no hurry. Like a cat with a mouse in its clutches, he proposed to savor leisurely the delight of making an end of me. He had looked forward too long to this moment—to have it all over with one quick bang of that pistol. He wanted to gloat in his horrible way over what was so obviously coming to me. And he had, I suppose what you might call a sense of the dramatic. For when he caught sight of a bottle of Scotch whisky on the shelf beneath the stuffed birds he brought it to the table with a couple of glasses. 'We'll have a drink,' he announced in the darkness. 'It will be like old times.' And he laughed hideously.

"Just then the flash came again, and I got a vivid sight of him, his mouth wide open, like a black hole in his shrunken, pasty-white face. The prison pallor was still on him. What he looked like, I really don't know. In those flashing glimpses of him, when everything suddenly leap out of the dark, his face seemed like a hideous mask, contorted and triumphant. 'After you,' he said grimly, and pushed the bottle across the table, I must have come out of my paralyzed state enough to pour myself a drink. When the room blazed with light I saw him with uplifted glass. 'Here's to your dead carcass, and may you roast in hell!' he announced. Mechanically I raised my glass and tasted it. I suppose my dislike for Scotch whisky dates from that moment."

Mr. Smith took up his glass, sipped it, and smiled dismally. "It brings back everything."

"Don't drink it," I interposed. "Let me get you something else." But he shook his head. He was silent for some moments, thoughtfully turning the glass in his fingers and watching the ice dissolving in it. Suddenly he looked up.

"What would you have done in a fix like that?" And without waiting for a reply, he went on: "It seems simple enough now, I should have told the fellow at once that he had got hold of the wrong Smith. Nothing easier. But at the time it wasn't. For one thing, my tongue seemed glued to the roof of my mouth. It was like a jelly. Frantic thoughts whirling in my brain until it almost hummed. If only Donaldson would come back. If only Wilcox would stroll over from the lighthouse. Which, of course, he was not permitted to do at night. I even prayed for some miracle to intervene and save me. And in the meantime I sat in that hot, dreadful darkness, braced against that recurrent, measured moment when, like a lash across the eyes, would come that swift, splintering light. And the horror of it all would once more stand revealed like noonday—that brutal, villainous face, whisky glass in one hand, revolver in the other.

"The bottle went again across the table. I managed to find my voice at last. I didn't like the stuff, I protested; I didn't want another drink. Only to be overwhelmed with curses. His language in moments of special irritation like this was really quite dreadful. He swore I'd drink with him or he would blow the—I believe he said the everlasting daylight—out of me, then and there. When the flash came again I saw that he had lifted the revolver. He informed me that I had always been a timorous little white-livered skunk. Felt myself too good to associate with common people. If he had only realized it ten years ago, fool that he had been to fall for me. However, the reckoning was at hand, and tonight all old scores would be settled.

"And so I drank, choked the raw stuff down somehow. Each time it seemed more nauseous than the last. He gulped his down with positive relish, and grew boisterous as it mounted to his head. 'We'll drink to all the old gang!' he suddenly exclaimed. 'Fill your glass!'

The light came and went as I poured again. The stuffed birds, stiff and motionless on the shelf, made a grotesque audience, looking down upon us with unseeing, buttonlike eyes. 'Here's to Jake Sprague!' he toasted. 'Lift your dirty glass!' He waited for the flash to come again to see if I had obeyed. And then, in the darkness, his voice suddenly dropped to a cold, menacing tone. 'Do you know what happened to Jake, you stuck-up, white-livered skunk? He did three years before they had to put him in the hospital ward. His lungs were gone. They let me see him once before he died. Last thing he says to me, he says, "Spike, I'm a goner. Listen, Spike, when you get out of here you've got to get Smith if you swing for it. And when you plunk the little skunk, plunk him once for me!" . . . Here's to good old Jake!'"

Mr. Smith paused to mop his forehea , upon which beads of perspiration had gathered. This memory of his youth was still very real to him. "Can you imagine me in a predicament like that? Can you imagine?"

Frankly, I couldn't. It seemed too unutterably absurd. With that beard which gave him an almost academic air, his timid, inquiring eyes, and his stiffish, formal speech. He seemed a harmless creature in a world of hardied spirits.

"Do I look like a crook? Do I?" he appealed to me again.

"You certainly don't," I assured him.

"All this happened nearly twenty years ago. Perhaps I looked different then," he went on in his childlike simplicity. "I may even have resembled that other Smith this fellow was after. I've often wondered just what points we may have had in common." He revolved this enigma in his mind for a few moments.

"Of course your guilty start when he called you 'Smith' seemed to give you away," I pointed out.

"Perhaps you are right," he said absently. "But it wasn't a guilty start; I simply jumped at the unexpected shout of my name." He pondered this for a while. "Yes, it was misleading and most unfortunate." He proceeded with his story.

"After the toast to the deceased Jake Sprague, it was the turn of a certain Dickey White. The bottle again went across the table, and I had to listen to another maudlin eulogy, with scorching comment upon myself. If I had any fast glimmering of doubt as to my visitor's cold-blooded intentions, it vanished completely, I wouldn't have believed that any man on earth could focus upon himself such collective; fiendish hate as this mysterious Smith I had been taken for. It almost turned me sick. And yet here's a curious thing. Like a man put under sentence of death, once the first shock and realization of it were over, I began to get used to it. As those dreadful toasts to my former pals proceeded, my thoughts steadied.

I started at last to argue with him. I wasn't the man he was after. But I had come to my senses too late, for his were gone—thanks to all those drinks of whisky. He was past the stage where I could reason with him. He only grew violent and began again to curse. 'What in the world would I be doing here?' I demanded. 'Hiding, of course!' he retorted. 'But I'm a bird collector for the government.' That sounded so silly to him that he only laughed. I persisted, until he raised his gun. 'Shut up!' he commanded, 'or I'll bump you off now.' And I shut up. My life hung by a thread, but it was folly to cut that thread.

"When he passed the bottle again I didn't dare refuse. I poured myself another scant helping. My mind was struggling desperately for a way out of that awful fix. I'm not what you'd call

something she could not find the voice to impart to her mother. It was sufficient in the beginning just to stand off and secretly adore, and secretly, oh so secretly, hope and hope and hope.

And out of the hoping was to come this:

One evening, entering the hotel suite in Detroit, wrapped in sables, blazing with gems, laden with long stem roses the color of which perpetually surrounded her, von Stroheim rushed up to her daughter, catching her tightly and ecstatically in her arms.

"My darling-cums Pet-cat, will you forgive your bad, naughty mother who loves you? She went and got herself married. You have a sweet new darling Pet-boy for a father."

Precisely that had happened. Von Stroheim and Gluck had been married by a local magistrate. A thunderclap had descended upon the life of a narrow, pasty-faced little person known as Paula von Stroheim. A thunderclap that was to reverberate through a lifetime.

Strange, that neither von Stroheim nor young Gluck was ever to have an inkling of this secret catastrophe in the heart and soul of Paula. She was the same unobtrusive, willing little soul she had always been. Von Stroheim, if possible, was more fiercely, relentlessly, maternal after her marriage, than she had ever been before. The terrible part to Paula was that Gluck was so gentle, so considerate of her well-being; so eager to successfully serve in his fantastic capacity as step-father. After all, he was only eight years the senior of Paula.

What happened subsequently came so gradually that it is doubtful if Gluck was conscious of it until after the condition was too well established to be remedied. It is doubtful if he even desired a remedy, so all-embracing, so powerful, so possessive, and so sedative was the claim of von Stroheim upon his heart and mind. She showered him with the magnificence of her affections, just such as she had showered Paula. She smothered him with indulgence, with endearments, and with a quality that transcended his own, and just as it had transcended Paula's.

At the end of the second year of this strange marriage, there was serving the great von Stroheim, not only the daughter who walked quietly in the wake of her magnificence, but the young Teutonic-looking husband, who had receded by this time, in which was to be the permanent role of accompanist and member of the diva's retinue.

From city to city, from country to country, wanders this magnificent caravan-de-luxe, the extravagantly personable prima donna shedding effulgence everywhere she goes, and in her wake, adoring her, the little daughter named Paula, and the little husband named Gluck.

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A Little Pruning Now and Then

By James J. Montague

IT WAS on account of the tree that we bought the house and lot. We thought at the time that we had a bargain. The dealer said that the tree was worth easily five thousand dollars, and he would throw it in for nothing. It was a large tree, of the immemorial elm variety, and had spreading branches, through which you could look up at the sky. When a sky is strained through spreading branches it looks more picturesque. Anyway we told each other so at the time, and were very proud of the woody plant as the cross word puzzlers called it, and exhibited it to all our guests. That was where we made our first mistake.

The first guest, Jones by name, cast his eye on the relic of antiquity and said:

"You don't know anything about trees, do you?"

I replied that I knew enough about them to admire them.

"Well you won't admire this one much longer unless you get the beetles off of it. Don't you see the holes they have chewed in the leaves. The thing will be bare as a plucked chicken in a couple of weeks."

Naturally I was disturbed at that, and asked him what to do about it.

"Don't ask me," said Jones, "ask a tree doctor."

I was not aware that there were any tree doctors practicing in the neighborhood, but Jones told me about one and I called him up the next day.

He sent me one of his assistants, probably an interne in some tree hospital, for he was quite young.

"Will you get the beetles off this tree for me?" I inquired.

"Yes, but what's the use of getting the beetles off when the tree isn't going to live but a couple of years more?"

"What's the matter with it?"

"Practically everything. You haven't had it attended at all by a tree specialist, have you?"

I replied that up to that minute I had never heard of a tree specialist.

"Yes," said the man, "that is easy to believe. Well, in the first place the tree needs root pruning. Then it needs branch pruning. Then it needs feeding."

"I suppose it is emaciated for want of proper diet," I said, trying to be ironical.

"It is starving. Can't you see how anemic the new growth is? Can't you see that they are dwarfed and misshapen. I suppose you think that a tree can get along without eating."

"Well I never saw a tree pull up a chair to a table and lap up a beefsteak," I said.

"My dear sir," replied the man, "this is hardly a joking matter if I may say so. Here is a fine beautiful tree, which nature has been two hundred years or more in building. Under its branches George Washington probably marched on his way to the battle of White Plains, at least he came in this direction. And you, buying it merely as a part of a piece of property would stand here and let this living witness of the Revolution die before your eyes and not lift a finger to aid it."

"But I didn't know that lifting a finger would help it any," I said, unconsciously lifting all of mine in the direction of the tree.

"What it needs is feeding, that is after the beetles have been removed, and after it has been pruned. Then I can come and look at it, and plan the next course of treatment."

"How much will the feeding cost—per meal?" I inquired.

"You haven't had it attended at all by a tree specialist, have you?"

"I can't tell you that as yet, we shall have to find out by an examination."

"Is the examination free?"

The man smiled. "Is the examination of a specialist free?" he countered. He had me there. I had recently been to two specialists, one about my insomnia and the other about my teeth.

I told him to go ahead. He did. I will say for him that he got rid of the beetles. After he had applied his medicine through a garden hose you could pick up beetles with a shovel all over the place. Then he root-fed it. After that he went away to wait results, which he said would appear in a month, perhaps.

While he was gone another man appeared, and said that he was interested in trees and admiring mine, but he was sorry to see that I was allowing it to fall to pieces.

I assured him that this was not the case, and told him what I had done.

"But look at it," he said, "look at those dead branches. Suppose a severe storm were to come along, what would happen to the branches?"

"I suppose," I said, "they would remain dead. It would take a pretty severe storm to reanimate some of them anyway."

"They would fall," continued the man, "and you would be liable for the lives of the people they fall on. A branch weighing a hundred pounds would not do a passer-by any particular good if it dropped on his head, would it?"

"Not much," I agreed.

"Well then, why not have the dead wood taken out."

"But I have a tree specialist working on it."

"Indeed, who, if I may ask."

I gave him the name of the specialist

He sighed. "Jack Legs," he said. "Cheap local imitators of real scientific tree physicians. All they are after is money."

He merely sniffed at my inquiry as to whether he was going to shin up the tree and lop off the old branches for his health. Then he returned to the menace of damages, and I told him to go ahead and cut them out.

The next morning I heard high words in front of the house and found two tree specialists, or their helpers engaged in a wordy war over their right to the exclusive treatment of my tree. Each insisted that he would not remain on the case with a quack. But when I told them both to leave and I would call another man on the case they came to a compromise.

I don't know how the tree will stand the various operations. But I hope for the best. Anyway the beetles are gone, and that's something.

MR. SMITH

continued from page ten

persistent flashing one's eyes didn't grow accustomed to it. Each recurrent flare only intensified the utter blackness that swept back into the room.

"So I waited. My hand crept out and felt the bottle, drew it slightly nearer. And then I dropped back to my former position before the coming of the next flash. 'Four!' went the count. Again I reached out in the dark and grasped the bottle by the neck, lifted it cautiously, adjudged its weight. More seconds went by. 'Five!'

"Half my time was gone. Should I wait, I debated, until the count reached eight, or even nine? No, that would be too much like leaving things to the last moment—a practice I've always disapproved of. But I decided to let the count of six pass while I tried the experiment of shutting my eyes against the glare that repeatedly blinded them.

"'Six!' I heard him announce. I opened my eyes after the flash had gone. Now I could dimly make him out in the darkness. The time was shortening, but I decided to give my eyes still one more respite. I waited, and shut them again during the count of seven!

"And now for it. I reached out for the bottle, gripped it firmly but not too tightly, and raised it back behind my head. I was really quite deliberate about all this. I had twelve seconds for the work of an instant. I balanced the bottle in preparation for the shot, swung it tentatively back and forth past my ear, much like a golfer making preliminary motions over his ball. I could dimly discern his head like a round blotch in the darkness. I took aim, a deep breath, and let fly.

"There was an awful crash, a great splintering of glass, and my visitor went bodily backward, chair and all, to the floor. And at the same instant came a flash and terrific report, for his revolver had gone off in his spasmodic clutch as he tumbled over. It fell from his hand, and in my dash for the door my foot struck it. I groped about and luckily found it. And once I felt the warm, sweaty butt in my grasp, my panic subsided. I turned and waited for the next flare of light. It came, revealing him limp and unconscious—a most unpleasant sight. I could see, at one appalling glance, there was nothing to run away from now. The bottle had worked incredible havoc. His skull was laid open above the left eye and an ominous trickle of blood was spreading out over the floor. When I dashed off at top speed toward the lighthouse it was not for refuge but to seek help."

Mr. Smith sighed heavily and leaned back in his chair as if exhausted. He mopped his face with his handkerchief while his timid blue eyes regarded me with anxious concern. "You understand, don't you? It was not at all what I had planned. But how could I have known? I had no idea how dangerous it might be to throw a bottle at a person's head.

"By way of sequel I stood trial for manslaughter in the Bardados court," he added, with lowered eyes and a little shame-faced. "But that experience was not as bad as it may sound. The British commissioner at Santa Clara who had entertained me was most sympathetic. I had no trouble at all in convincing him that I had not been the aggressor. He said he was sure I wouldn't kill a man in cold blood. Thanks to him, the whole affair in the end was little more than a court formality, for in the meantime it had been ascertained that the fellow was actually an ex-convict from the States. How he got me mixed up with the other Smith and then tracked me all the way to Santa Clara I never could figure out. Donaldson, who turned up the day after the unhappy affair, couldn't make head or tail of it."

Mr. Smith was silent for a few moments, his forehead, wrinkled with a perplexed frown. "You'd have to think up some explanation of that—wouldn't you? —if you made all this into a story."

I nodded assent.

"And that other Smith—you'd have to get him into the story somewhere?"

"We might pretend that Donaldson was the other Smith," I suggested.

He puzzled over this for a long moment, and suddenly his face lighted.

"Now that's an idea!" he exclaimed enthusiastically. He pondered further over my proposed emendation of his tale, shaking his head with a sort of envy mingled with admiration as its possibilities grew clear to him. "Do you know, I would never have thought of that. Well, after all, you writers . . ." His voice trailed off absently. Presently he sighed, in a kind of resignation, and pushed aside his half-emptied glass:

"I guess my line is just birds."

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HOUSEHOLD HINTS

By J. Norman Lynd

IN the HANDS of SARDINIAN

"DEATH

a man of action, exactly. And mentally I was all tangled up. This was too much like something one reads about in a book. Something that doesn't happen—least of all to one's self. And yet here it was actually happening to me. The reality and yet unreality of it somehow wouldn't reconcile themselves in my mind.

"But the repeated sight of the muzzle of that revolver every time there came that blinding flare of light was enough to drive me to any desperate step. I even considered just bolting in the dark, but the round table was of enormous size, and it stood between me and the door. For all his maudlin talk, his right hand remained like a thing apart from himself, alert and ready. Each time the white flash swept the room I saw the revolver covering me. He was evidently an old hand at tricks of that sort. A sudden dash on my part would only be inviting destruction. If I could have snatched the ugly thing out of his grasp—but the mere breadth of the table barred so desperate a chance. Besides, I knew that in a hand-to-hand struggle I should be no match for him.

"If only I could lay hands on a weapon of some sort. My fingers fairly itched. Again came that blinding moment of unnatural daylight, and I looked desperately about. My collector's gun hung upon the opposite wall. There was nothing within reach, nothing I could snatch up that might offer even a chance for unequal battle.

"He passed the bottle again with a harsh command to 'Drink up!' My fingers closed mechanically upon it, lifted it. And suddenly a thrill went over me. The bottle! As I shakily poured my drink in the dark I felt its smooth flanks, appraised its weight. The flash came just then, and I saw its thick, heavy bottom. 'Come across with that bottle!' he commanded impatiently.

"But I knew it would come back to me again, and now I had a desperate hope, a half-formed plan. My heart began to crowd up into my throat and beat thickly as I mentally rehearsed the execution of that foolhardy design. The bottle! It was my only recourse, my only chance, against his gun.

"It sounds absurd now, doesn't it? One chance—would you say—in a hundred? For I couldn't reach across to brain him with it; the table was too wide. I would have to hurl it at his head—and in the dark—trusting that it would find its mark.

"But when it came to that ticklish moment of lifting it and aiming it at his head for that desperate fling on which everyhing hung I didn't want liquor spilling out of it. We would have to drink it dry. So I poured myself a stiffer drink. When the room blazed again he saw what I had done and laughed. He even applauded my increasing thirst.

"I gagged over the the fiery stuff, but I got it down. It never occurred to me that it might make me intoxicated. And I give you my word, it didn't have the slightest effect. Once I had managed to swallow it, it might have been so much water. Drink after drink—ugh! But I contrived to reverse the order of pouring. 'After you!' I now said, and so after each replenishment of our glasses the bottle remained on my side of the table.

"At length it was empty. The last of the whisky was in our glasses. I could feel my heart thumping like a trip hammer, only no trip hammer ever went at such a pace. It was now literally do or die. He tossed off what remained of his drink and threw the glass to the floor. "Time's up!" he announced thickly. The returning flare lit up his determined, evil face. He had raised the revolver and was leaning slightly forward. He meant business. 'I'll give you ten more flashes of that light. When the tenth comes, I shoot . . . That's one!"

"The darkness was upon us again. The light was gone, in its vast circular sweep over the empty sea. Ten flashes—one hundred and twenty seconds, I calculated. I had two minutes to live. You may be surprised that I could do a simple bit of multiplication and division at a moment like that. But I did it, and rather deliberately, too. For a sort of cold apathy had come over me. Yes, I deliberated. For while only two minutes stood between me and death, nevertheless I was sure of those two minutes. Within that narrow margin of time I had, so to speak, all the time in the world. To fling that bottle at his head was the work of an instant.

"So I deliberated. Should I hurl it at once or wait? While I was pondering the question, the room blazed again. "That's two!" he said. He had straightened up now, prepared for the business in hand. His fingers had tightened upon the revolver.

"I rehearsed in my mind what I was about to do. I tried to visualize the bottle clutched in my hand. I tried to imagine its heft when lifted above and behind my head—just how it would feel—and then the swift fling with all my strength. I was strangely composed, although my heart was racing with tremendous beat. I could feel the pounding even in my ears. For example, I reflected that there was a nicety about that throw, quite as important as correctness of aim. The bottle must not turn too fast in midair. The success of my desperate maneuver might depend upon the bottle striking his skull with its heavy end. The most I could hope for was to knock him cold, as they say, while I made a dash from the cabin toward Cap Indienne.

"'Three!' he counted, as the room suddenly leaped out into reality and vanished again. 'Shall I risk it now?' I asked myself, and hesitated. Meanwhile, with every instant, the ray was sweeping out around its vast circular track. No, I wasn't yet let. I wanted the full twelve-second interval of darkness, not a fraction of it. And how could I be sure of my aim in the dark Under that

(Continued on Page Twenty-four)

All About New Year's Day

Facts About a Quaint Old Custom in Various Lands at Various Times

By P. G. Wodehouse

NOTHING is more amazing than the way in which the modern writer keeps his finger on the public pulse and knows, by a sort of instinct, exactly what the public wants. It requires a special aptitude. Some time ago I had a notion that I ought to write something about New Year's Day, and, by Jove! the more I think of it, the better it seems to be. It is so timely, if you get what I mean. One moment, while I ring for Briggs, my butler, to instruct Francis, the head footman, to tell the second footman, Wilkins, to fetch the good old Encyc. Brit., and then I'll be with you.

People in the early days were, we read, "expected to spend New Year's Day in quiet meditation." How wonderful it is to think of this, and then to realize that after all these centuries the custom still prevails. Go 'round to any of your friends on the morning of January the first, if you are in a condition to do so, and see for yourself. The odds are a hundred to one that you will find him in bed, or in a darkened room, with a pitcher of ice water at his side and a vinegar-soaked bandage 'round his forehead, quietly meditating.

I myself have frequently started meditating quietly on waking up at two in the afternoon on January the first, and kept at it with the aid of daily visits from the doctor and a generous supply of headache powders till the evening of January the third, when I felt that it would be judicious to vary the monotony of my hermit life by looking in at a quiet place for a bird and a small bottle.

It is curious how several of the old customs connected with the birth of the New Year have prevailed through the ages. Some, it is true, have lapsed—notably the practice of the ancient Persians of celebrating this festive season by giving presents of eggs. This may have been all right for the ancient Persians, but only millionaires can give away eggs at the current prices. It is all we can do to buy one for ourselves on occasions of special joy, as for instance a day of successful short selling in the street. There is no more imposing spectacle than that of the modern New Yorker counting his roll to see if it will run to an omelette for the wife and family.

But if the state of the exchequer no longer permits of the continuance of this custom, there are others we still observe—that one, for example, which flourished in medieval England. In those days it was the practice of the King—I quote the Encyclopedia—to "extort gifts from his subjects," and it is on record that King Henry the Eighth on one occasion got into the ribs of Cardinal Wolsey to the tune of one hundred and seventeen pounds, seventeen shillings and sixpence—the peculiar figures giving one to suppose that his bluff majesty met Cardinal Wolsey in some dark alley when he was coming back from the bank, and stood him on his head and lifted the stuff out of his pockets. But Henry was a performer in a class of his own and, in the year 1533, is related to have been given "by all classes of his subjects many thousands of pounds."

Today, living in a republic, we no longer celebrate the New Year by bestowing money upon kings, but lavish it instead upon headwaiters, captains, taxi-drivers and hat-check boys.

There has always been a good deal of confusion in the public mind as to when, exactly, New Year's Day really is. The ancient Egyptians, Phoenicians and Persians held that it came at the autumnal equinox, which, as I need scarcely inform my readers, falls on September the twenty-first. The Greeks, on the other hand, who were in just as good a position to know, bet heavily on December the twenty-first. But in 432 B. C. they got perfectly delirious and would have it that New Year's Day was June the twenty-first. The ancient Romans picked out January the first, but the medieval Christians were solid on the twenty-fifth of March. This sort of conflict of ideas makes it very difficult for a conscientious man to do the right thing. He starts out simply and straight-forwardly enough by sallying forth on the last night of December to his hundred-dollar reserved table, with the laudable intention of parading the streets later on with a tin horn or a cowbell and registering appreciation of his blessings by making as much noise as is in his power.

But mark the sequel. As March approaches, doubts begin to assail him. "Was I right?" he begins to ask himself. "Those medieval folk were shrewd fellows. Who knows whether they may not have had the right dope in this important matter of the start of the New Year?" The only way he can square his conscience is by going out and celebrating on the night of March the twenty-fourth. Scarcely, however, has the doctor left his bedside with the statement that he is all right now, when he begins to brood on the fact that the ancient Phoenicians, who were no fools, favored September the twenty-first as New Year's Day.

By this time he is so uncertain that he feels the only safe course is to hunt up all the data and start celebrating every New Year that any nation or collection of people ever invented, with the result that he has only just time to get in on the festivities on December the thirty-first, the now fashionable date, and join his unthinking fellow-citizens in their revels. Many a young man, in the springtime of life, has wasted a great deal of time simply through reading the New Year's article in the Encyclopedia. As a matter of fact, my own perusal of it has left me with grave doubts, and I had better be closely watched on the eve of June the twenty-first, as I am beginning to come 'round to the later Greek view.

No mention is made in the Encyclopedia of the modern custom of New Year's resolutions. This is strange, for it surely cannot be a purely twentieth-century fashion. Are we to understand that the ancient Romans never vowed that from the start of the year they would keep a diary regularly, and that Shakespeare never sobered the New Year's Eve revels at the Mermaid Tavern with his simple, dignified—"Count me out, comrades, for gadzooks! I have quit ye stuff for keeps!" Surely not. New Year would not be New Year without its resolutions; and, what is far more important, humorous literature could not exist without them. The ancient Phoenicians must have had some sort of comic literature—carved, doubtless, on stone slabs and scattered at your door from a truck. In that case, they must have made New Year's resolutions. It would be extremely interesting to have the views of some archaeological expert on this important point.

I have little more to add. If any word of mine enables my readers to approach New Year's Eve in a more thoughtful frame of mind, I shall be amply repaid. If, when dancing at your favorite restaurant, you pause for a moment to say to yourself, "Even so did the ancient Egyptians do!" or "I bet Henry the Eighth was a whale at this sort of thing!" and, as you knock over the last remains of the crockery and glassware, you feel a passing pang for the days that are no more, my labors will not have been in vain. I thank you.

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In those days it was the practice of the king . . to "extort gifts from his subjects."

RETINUE

By

FANNIE HURST

Paula was pasty-faced, slightly near-sighted and as far removed as possible from the exuberant creature-beauty of her very young looking mother. She was doomed to walk in the wake of grandeur

AROUND the heroic figure of Camilla von Stroheim had always whirled entourage.

She had been a prima donna since she had flashed, at a robust seventeen, a magnificent Brunhilde, upon a public that welcomed her permanently to its bosom. For the first fourteen years of her triumphant career, during the lifetime of Herr Graf von Stroheim, one of Germany's magnates, she had three times toured around the world in operatic and concert capacity, success always in her wake.

After the death of her husband, Camilla had spent most of her time in America, traveling on continuous tours with her daughter, three or four maids, secretaries, chauffeurs and a special valet whose exclusive duty was to care for the dozen or so Daschunds, which invariably made up part of the diva's caravan.

Paula von Stroheim, daughter of Camilla, had been born in the Waldorf-Astoria in New York City, christened in Berlin and educated by governesses and tutors of practically every civilized country of the world. At seventeen she was a pasty-faced girl, given to occasional outbursts of tiny pimples, narrow-shouldered, slightly near-sighted, and as far removed as possible from the exuberant creature-beauty of her mother and in no way similar to the stout expansive figure that had been her father's.

Curious, but von Stroheim, probably too busy with the glitter of her own career, had never been acutely conscious of these physical shortcomings of her daughter. She adored her. She lavished endearments, gifts, indulgences, and was most elaborately demonstrative. She had a nickname for Paula; a ridiculous one. "Pet-cat."

"My darling-cums Pet-cat, what would mother do without you?" "My angel-faced Pet-cat, how could von Stroheim exist if it were not for you?"

Angel-face or no angel-face, well might von Stroheim ask herself that question.

From the time Paula had been six she had slavishly been serving her mother. By the time she was sixteen, no lady's maid, no masseur, no attendant of any kind whatsoever, could bring to von Stroheim the sedative kind of relaxation that emanated from the finger tips of her daughter. Paula served her mother heart, soul, and body. She was on call in the watches of the night, when the great diva, given to insomnia, wanted to talk. She was on call in the wings of the operahouse, when the great diva, impatient of her physicians, wanted Paula, who stood waiting with a throat syringe. She was on call with the train schedule; concert schedule; hotel schedule. In other words, the frail and pasty-faced little Paula was doomed to walk in the wake of grandeur.

Until she was about nineteen, however, these realizations did not bite in. Her adoration of her mother was so colossal that it dwarfed her sense of relative values. Von Stroheim was like a great sun in the center of Paula's life, throwing its fierce, powerful rays everywhere about her. The tempers, the temperaments, the moods, the vagaries of her mother, were the indicators, so to speak, in the life of Paula. When von Stroheim smiled, Paula smiled. When von Stroheim threw glassware and tore silk to shreds, Paula's little soul quailed within her. But it must be said for von Stroheim, that whatever her moods, whatever her fluctuations of temperament, her attitudes toward her child were chiefly those of adoration.

As the members of the entourage and the sychophants who hung on the outskirts of the retinue that surrounded the great prima donna used to say, Pet-cat was her sole reverence. Pet-cat was the only creature on earth she really loved. And fiercely Paula loved in return; worshipped the flower-strewn ground on which her mother trod, had no thought of self, because hers was bound up in the magnificence of von Stroheim.

It was when Paula was nineteen that there wedged into her life an emotion that was new, terrifying and ecstatic. A secret emotion, which she would not admit at first even to herself, and yet as it became more and more apparent it was wonderful to lie on the cot she invariably occupied at the foot of her mother's great bed, and let these strange ecstasies sweep over her in floods of enchanted sensations.

Paula was in love with the small blond accompanist who had joined her mother's retinue a few months previous. He was a German fellow, Teutonic, blue-eyed, yellow-haired, who spoke English as fluently as he spoke his native tongue, a brilliant musician with promise of a fine career of his own, after a few years of apprenticeship as accompanist. Von Stroheim was not easy to serve in this capacity. Her experience with accompanists was varied and full of all kinds of regrettable experiences. They came, they went. She was known as a "holy terror" to the pianists who had served her and young Meyer Gluck was not unaware of this when he enlisted as her pianist.

Of all his predecessors, however, Gluck had been the most successful. Von Stroheim liked him; had taken a fancy to him from the start. She petted him, she babied him, and had personally nursed him through a heavy grippe cold which had overtaken him in Seattle on one of her cross-country tours. She even had a name for him, as ridiculous in its way as Paula's. "Pet-boy." The young man flushed whenever she applied it to him, even after months in her service. It made him feel ridiculous, and at heart he was a shy, serious, ambitious fellow, full of dreams of ultimate pianistic triumphs.

Paula found herself also harboring these dreams for Gluck. In the hotels where their retinue camped on its tour from city to city, her greatest joy was to find a place near the door of Gluck's room, and stand there listening to his practicing, as it came in avalanche arpeggios down the long impersonal hotel corridors.

Paula was in love.

Overwhelmingly maternal as von Stroheim was in her treatment of this girl; ardent, emotional, demonstrative and indulgent, there was not between them, at least so far as Paula was concerned, any relationship that admitted of a revelation of the minute secrets of the mind and heart, chiefly it must be admitted, because Paula up to this time, had owned none in particular. At nineteen she was practically as much of a child to her mother as she had been at nine. Paula was no problem to von Stroheim for two reasons: the great diva was too occupied with the intricate problems of her famous self and so subtly had the eventful years slipped by, that von Stroheim had no conception of the fact that her daughter was an adult.

"Pet-cat my darling-cums, come sit on your mother's lap." "Pet-cat angel, come rub your mother's head." "Pet-cat my baby, wake up and talk to your mother. I can't sleep." And always the talk was of the diva; her triumphs, her defeats, her hopes, her chagrins, her tempers, her loves, her hates. And of all of them there were aplenty, because as time went on, and her position became more and more secure, von Stroheim became more and more the temperamental operatic star.

That was why, when love came to Paula, strangely, shyly, secretly, it was

a man of action, exactly. And mentally I was all tangled up. This was too much like something one reads about in a book. Something that doesn't happen—least of all to one's self. And yet here it was actually happening to me. The reality and yet unreality of it somehow wouldn't reconcile themselves in my mind.

"But the repeated sight of the muzzle of that revolver every time there came that blinding flare of light was enough to drive me to any desperate step. I even considered just bolting in the dark, to drive me to any desperate step. I

"He passed the bottle again with a harsh command to 'Drink up!' My fingers closed mechanically upon it, lifted it. And suddenly a thrill went over me. The bottle! As I shakily poured my drink in the dark I felt its smooth flanks, appraised its weight. The flash came just then, and I saw its thick, heavy bottom. 'Come across with that bottle!' he commanded impatiently.

"But I knew it would come back to me again, and now I had a desperate hope, a half-formed plan. My heart began to crowd up into my throat and beat latter-

slightest effect. Once I had managed to swallow it, it might have been so much water. Drink after drink—ugh! But I continued to reverse the order of pouring. 'After you!' I now said, and so after each replenishment of our glasses the bottle remained on my side of the table.

"At length it was empty. The last of the whisky was in our glasses. I could feel my heart thumping like a trip hammer, only no trip hammer ever went at such a pace. It was now literally do or die. He tossed off what remained of his drink and threw the glass to the floor.

"So I deliberated. Should I hurl it at once or wait? While I was pondering the question, the room blazed again. "That's two!" he said. He had straightened up now, prepared for the business in hand. His fingers had tightened upon the revolver.

"I rehearsed in my mind what I was about to do. I tried to visualize the bottle clutched in my hand. I tried to imagine its heft when lifted above and behind my head—just how it would feel —and then see the swift fling with all my strength. I was strongly composed, although my heart was pulling like fu-

IN *the* HANDS *of* SARDINIAN "BANDITTI"

"Yes," she translated, "you are a prisoner. My grandfather says you are the head of a band of bandits."

An American's Adventure "Going Native" in the Mountain Passes—Where Life Hung on Identification by a Stranger

By Peter Upton Muir

[The author of this article is an American who first came into prominence in Russia in 1922 through conflict with Tetov, a former bandit who had become Communist dictator over the town of Nicopol on the Dnieper. Mr. Muir was in charge of the distribution of food sent by Americans for the relief of the starving people. For several weeks Tetov succeeded in preventing food being issued. Muir shoved off the soviet guards and distributed the supplies himself. Eventually an appeal to Kharkov brought about the removal of Tetov. Since those days Mr. Muir has indulged a passion for travel, seeking out little-known places off the tourist routes. The account he gives here of his experience in Sardinia is interesting not only for the drama of the story, but for the unusual background.—Editor.]

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I HAVE the misfortune of being a fairly good linguist, a passionate reader of travel books, and a tireless wanderer. This combination of facts has led me into the most out-of-the-way and at times outlandish places, for I read the accounts by travelers and immediately set out to follow their trails.

I once made the mistake, while passing a quiet time in Venice, of browsing through an old copy of Marco Polo's immortal works, with the result that the calm splendor of his native city held no more charms for me, and off I went on a two-year trek across Asia, following as closely as possible in the footsteps of this great explorer and adventurer.

I suppose it is the lack of automobiles that makes Venice so restful and conducive to reading. But when I read an interesting account of some country or island that I have overlooked, the very calm I have so much enjoyed begins to weigh on me. I recognize the feeling and when it comes I must be off. It might be called, I suppose, the wanderlust, a most unfortunate and incurable malady, and he who is afflicted with it will never know the peace of home life.

Last autumn I felt the need of Venice, having returned to Europe via the United States, after a strenuous and somewhat dangerous trip through the gorges of the Yang-tse-Kiang. Again I enjoyed quiet hours on the canals, again I found untold pleasure in my "aperitif" on the Piazza, and again my peace of mind was disturbed by a far too interesting travel account which I had dug out of a dinky little book-stall in one of those dark narrow streets to the rear of St. Mark's.

The work was in French, two large volumes by La Marmora, and about the Island of Sardinia. I had visited Sicily, Corsica, the Balearic and other islands in the azure sea, but Sardinia had never attracted me. Now my interest was aroused. I sat reading at my favorite cafe and it was almost six o'clock before I realized that I had not lunched. As I generally took my second appetizer at this hour I ordered a vermouth bitter and, putting Sardinia out of my mind, I sipped it slowly, enjoying the music and watching the coming and going of the late afternoon crowd which gathers from the four corners of the earth to parade in the Piazza St. Marco. A Japanese trying to sell his strings of false pearls to a group of American girls. A wealthy Indian merchant with his wife clothed in the shawls and veils of her native land. A bespectacled German religiously studying a guide-book. French, Russians, Spaniards, Turks, Greeks, all mixing together in one huge mass just as they did in the days of Marco Polo when Venice was the market place of the world. The color and beauty and peace of Venice were there to enchant me, but I knew in my heart that I was again to be defeated by my old enemy—Wanderlust. Instead of yielding to Venetian enchantments, I was forming mental pictures of La Marmora's Sardinia: ancient castles, splendid scenery, towers and churches of the twelfth century left as marks of Pisan domination; the Nuraghe, cone-shaped towers constructed of lava blocks without mortar, built in prehistoric ages for what purpose no one knows; the giants' tombs; history, strife, folklore, age-old customs, beautiful mountain women wearing brilliantly colored national costumes.

The next morning I rushed out to the nearest travel agency to inquire about communication with Sardinia. After considerable fumbling with time-tables, I was informed that a good boat left Genoa every Wednesday night for Cagliari, with a short stop in Leghorn. The clerk and I both looked at the calendar; it was Wednesday—could I make it?—yes, if I caught the eleven-something train. I did, and the next day found me sitting on deck enjoying the splendid Mediterranean sunshine.

Saturday morning we passed the famous point of land called "Sello del Diavelo" (Devil's Saddle) and Cagliari came into view looking for all the world like a great crown with its ancient Castello, still the home of the old noble families, built majestically on top of a hill overlooking the magnificent bay and the rugged mountain chain to the southwest.

Cagliari, the capital of Sardinia, is a splendid city and contains points of historical interest left by the many different peoples who have occupied the island. Spanish and Pisan influences are perhaps the most deeply rooted, but traces of barbarians, Romans, etc., are also to be found. Perhaps what impressed me most was the lovely panorama from the Bastione, a large piazza built below the Castello, but overlooking the roofs of the new city. Here the population gathers in the evening during the warm months to take its "al fresco" promenade.

To penetrate to the interior of the island, I avoided trains and automobiles, as speed is fatal to getting really acquainted with a country, so I was left the choice between a horse or one of the tiny donkeys so ubiquitous on Mediterranean shores. I was in no hurry and horses are liable to fall sick; so Balaam's mode of locomotion appealed most to me.

On donkey-back I started off for the first leg of my journey up the east coast; up over the hills of Sette Fratelli and back, through lovely gorges, to the sea at Muravera, where the innkeeper informed me I was the first American he had ever seen. Then a long trek to Lanusei. On the way I stopped from time to time for a little fly fishing, and trout were plentiful as the streams have practically never been touched. While Sardinians are great hunters they have no interest in fishing as sport; fishing is work. Finally we arrived in Lanusei and I found it so lovely, overlooking the charming and sunny Bay of Tortoli, that I decided to rest there for a few days before going into the heart of the island.

We set out over the mountain for Seui with the intention of turning off to the right, Aritzo in the Barbagia Belvi being our destination. The trip from Lanusei to Seui and the valley of the Flumendosa River are indescribably beautiful. The villages of the Gennergentu (Gate of Silver,) Tonara, Belvi, Aritzo, Desulo and Fonni, with their lovely women dressed in gay national costumes, delighted me so that I spent a month wandering through them.

The weather was turning chilly in the mountains as it was now late autumn; so I decided to move to Nuoro as quickly as possible and then westward to Macomer, where I could study the mysterious Nuraghe, and on to Bosa, the sunny little hamlet on the west coast, built where the River Temo lazily joins the sea.

To students of Sardinia it is known that Nuoro and its surroundings are particularly famous for bandits, and that Orgosolo is the worst part of the island. Grazia Deledda, Sardinian woman of letters and Nobel Prize winner, is from Nuoro, and her books are based on the violent habits and passions of her people. Therefore, not because of any surplus courage, but because I was most interested in this part of the country, I chose to go to Nuoro via Orgosolo.

At Orgosolo I found a clean room and passed the night. Heaven knows the village seemed peaceful and quiet enough. Next morning I awoke to find the ground covered by several inches of snow, but decided it was advisable to go on, as, by taking the short route passing Oliena, I could be in Nuoro that night, and I didn't care to find myself snowbound in Orgosolo despite its apparent calm. The donkey gave evidence of not liking the snow much, but on she plodded, the patient little beast that she was. Hour after hour we trudged through the snow until I was sure we should have reached Oliena, but there wasn't a house or hut in sight.

Off to the left rose a high hill and from behind its crest I thought I could distinguish a column of gray smoke curling skyward. I determined to have a look, for I was beginning to fear we

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GOOD SHORT STORIES

Compiled for The Times Sunday Magazine

Fizzle

After trying vainly to make a cigarette lighter work, Jack Natterford, the motion-picture writer, tossed it aside in disgust exclaiming:

"Thus does history repeat itself. It reminds me of the most dramatic moment in the French match industry. You know, matches are one of the government monopolies over there and it seems that one black day reports began coming in from all over France that the matches didn't light.

"From hundreds, the complaints grew into thousands. It became a political issue. The fate of a hitherto successful cabinet hung in the balance. Accusations were hurled and an investigation launched.

"It was quickly discovered that the last batch of matches had been made from the hull of an obsolete warship presented to the match department by the Navy. But no one had thought to mention the fact that all this wood had been thoroughly fire-proofed at the time was fashioned into a man-o'-war."

Secret

Little Sol Kaiser was deeply distressed because his parents would not let him enter his dog in the last show of the Pasadena Kennel Club.

"They only allow thoroughbreds," the lad's uncle explained, trying to console him. "Now, if you entered your dog, the first thing they'd ask is 'what kind of a dog is it?' and when they did, what would you answer?"

Sol thought it over a moment and then answered:

"Don's father was an Airedale and his mother was a female and that makes him a thoroughbred Movie dog."

Mixed

"What river separates Texas from Mexico?"

This was a tough one for Billy. His father tried to coach him a little but the lad was too tired to pick up the cue. He was even assured that this would be the last question of the evening, but still the answer was not forthcoming.

"Well," said his father finally, "think hard and I'll help you. It begins with R. It's Rio—" Father paused.

"Oh, I know now," cried Jackie. "It's Rio Rita."

Habitual

"French diplomacy," said Senator Borah, "sometimes reminds me of the absent-minded girl. It was during a petting party that the girl's ardent suitor turned to her and demanded:

"'Am I the first man you've ever kissed?'

"'Why of course you are!' exclaimed the girl, adding absent-mindedly, 'Strange how all you men ask the same question.'"

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Once Overs —:— —:— By C. D. Batchelor

"Jack, I'm the loneliest person in the world."
"Aren't we all, my dear?"

Missing

At a New York luncheon Dr. Bhasker P. Hivale said:

"If you went to India today, you would miss but two things. You would miss something that I think is the most beautiful thing I have seen here—snow. But you would also miss that which I think is the ugliest thing I have seen in America—the hot dog."

Backsliders

The other day, while in festive mood, George Bernard Shaw took another of his caustic cracks at Americans. He declared:

"Americans are a barbarous people and are returning to red Indian life. Your faces and figures are changing and your complexions are getting redder and redder.

"You treat your women like squaws and you are going back to feathers."

Inconsiderate

While Howard Haskins was visiting in Southern California, he took a trip to Agua Caliente and naturally placed a few bets on the dog races. When he returned to Los Angeles, a friend asked:

"Did the dogs you bet on go very fast?"

"Not half as fast as my money," replied Mr. Haskins ruefully.

Diplomacy

Judge Capotosto, the veteran divorce-court magistrate, in commenting on the change in the times, said with a twinkle in his eye:

"The old idea seemed to be to kick a wife into submission, but it has been found more satisfactory to kiss her into acquiescence."

Topped

It was during an argument between a man from Florida and a Californian, that the first named shouted:

"Brag all you want to, but you haven't any cocoanuts in California.

"Well, that may be," admitted the Californian, "but after all, about the only use for cocoanuts is to make soap and we don't need any. But if we haven't any cocoanuts, we've got musical fish."

"What musical fish?" demanded the man from Florida.

"Tuna," stated the Californian as he ducked for the border.

Successful

The charge made by the Carnegie investigation committee that football in some of the colleges is given more importance than studies, recalls a certain interview which occurred recently in a well-known eastern college.

"What are you in the college football team?" prexy demanded.

"Half back."

"What are you in your studies?"

"Way back."

Obedient

A rather celebrated Washington doctor smiled with satisfaction when he entered the office of the Secretary of the Treasury the day after Thanksgiving.

"Ah!" he exclaimed, "you really are looking much better today. I really was afraid that turkey might prove too much for you."

"Not a chance, not a chance," laughed Mr. Mellon. "You see, I followed the directions on the bottle you gave me implicitly."

"Directions?" asked the doctor, puzzled. "Why, I don't recall any directions on the bottle."

"Keep the bottle tightly corked. Read it yourself," grinned Mr. Mellon.

Unfair

"I am quite sure," declared Senator Moses, "that people change in accordance with the clothes they wear. We don't have any more of the fainting ladies of crinoline days. Really, I think a great many of our knicker-wearing girls are much more hard-boiled than the men.

"The other day I was on the golf course at one of the White Mountain resorts when I overheard two girls in knickers exchanging confidences. Said the first one:

"'You don't mean to tell me Margie has resigned from the country club?'

"'Yes,' said the second, 'she got sore because they wouldn't let her play in the Father-and-Son tournament.'"

Cautious

"Most people are very unfair and very biased in the digestion of the daily gossip they hear," remarked Mayor Porter. "Too many of us are like the young lady at the political rally.

"'Do you believe all the disagreeable things you hear?' a political worker asked her at the close of a vicious attack on the candidate.

"'It all depends upon whom they're about,' replied the young lady earnestly."

Eligible

While Thurston, the magician, was in Java, he was invited to the palace of the Sultan. When he arrived it chanced to be siesta time and, with everyone asleep, Thurston stumbled into the Sultan's harem, where he was instantly discovered and brought, a prisoner, before his host.

The Sultan took the matter as a huge joke, blaming not Thurston, but the guards, who obviously had not been on the job. On this occasion, the Sultan invited Thurston to attend a celebration of the birthday of the Dutch Queen, which was being held the following week.

Arriving at the gates of the Dutch government house, Thurston could not make himself known to the Dutch officials, for they knew no English. A gentleman close by asked in English, but with a Dutch accent:

"Who are you?"

The magician decided that he must use some name that even in this outpost of civilization would mean something. In a majestic voice he exclaimed:

"George Washington of America!"

Instantly he was admitted, amid the profound bows of the officials.

Convicted

Admiral Sims, in a plea for the maintendance of an adequate navy, said:

"I am sorry to say that a great many of the advocates of a bigger and better navy find themselves in the same position and with the same scanty justice, as the man whose wife accused him of extravagance.

"'You accuse me of extravagance,' shouted the outraged husband. 'Very well, prove it. When did I ever make a useless purchase?'

"'Certainly I'll prove it,' retorted his wife. 'What about that fire extinguisher you bought a year ago? We've never used it once.'"

Warning

One of the Mayo Brothers, who ranks among the greatest surgeons of the age, was addressing a group of medical students in Chicago.

"When it comes to making general recommendations for the preservation of health, I am inclined to paraphrase the old saying, 'Take care of the pennies and the dollars will take care of themselves.' Yes, I believe the medical slogan of today should be:

"'Take care of the nights and the days will take care of themselves.'"

Bluffing

Sam Dennison loves to tell of the days when Mark Twain was dead-broke like the rest of them in a run-down mining camp in Nevada, named Unionville.

"Most of us," says Mr. Dennison, "lived on dried beans and pork and only the very well-to-do could afford canned goods. Indeed, canned goods were a sure sign of prosperity.

"Mark and a chap named Claggert lived in a tumble-down shack, the last one beyond the last saloon in town, but Mark had worlds of fun pretending prosperity. He used to go around and gather up all the empty cans in the settlement and dump them in his front yard so passers-by might figure that there was at least one man in Unionville who was living well."

Annoying

Charley Murphy, the well-known trainer of animals for motion-picture work, had led an elephant through one rehearsal of a scene that was about to be taken.

"Better do it two or three times so he won't make a mistake," cautioned the director.

"Oh, once is enough," said Murphy. "You may not have known it, but an elephant never forgets."

"My gawd!" exclaimed the director, looking about vainly for his mislaid megaphone. "I wish I could wrap one 'round my finger."

THE DOOR OF DEATH

were not on the right road. Sure enough, on reaching the top of the hill I saw a fire burning far off in the valley on the opposite side. From my high vantage point many miles in every direction were visible, but not a village was in sight.

Down we climbed in the direction of the smoke, for there was nothing to do but find out where we had wandered to and get a new start if necessary. Crash! I had stepped on something and it had given way, and falling with the whole weight of my body I dragged the donkey with me. Down—down—down we slid over the snow and rocks, first the donkey on top, then I, until the white snow became black and I lost consciousness.

Some time had elapsed when I came to and found myself lying on a crude but not uncomfortable bed. The room was small and dark, seemingly windowless and lighted only by a candle. A few skins adorned the walls. A chair and a table were the only other furniture. Little by little my brain cleared and I remembered the fall. One by one I tested each bone, and although I was badly bruised and scratched I was delighted to find that nothing was broken. With great effort I raised myself to a sitting position.

Something moved to the left and as my eyes became accustomed to the dim light I could see the door, guarded by a young mountaineer with a shotgun under his right arm. I was a prisoner in that section of Sardinia famous for the most desperate bandits.

As I stared at him my guard opened the door and called to some one in the next room. A handsome but fierce-looking old fellow, gray-haired, gray-bearded, and in national costume, entered, saluted and addressed me in dialect of which I understood only a few words. Seeing that I could not follow he turned to the guard and ordered him to fetch Theresina. The young man obeyed and soon returned with a bright-faced girl of about ten.

The old peasants rarely speak Italian and are usually illiterate, but the younger generation, thanks to the efficiency of Fascism, has the benefit of state education. Theresina had been to school and spoke Italian, so she was to act as our interpreter. I immediately asked her if I was a prisoner and why. She put the question to the old fellow and his answer was far from reassuring.

"Yes," she translated, "you are a prisoner. My grandfather says you are the head of the bandits in Gallura who shot his brother."

Down we slid over the snow and rocks while the snow became black and I lost consciousness.

"But I am not a Sardinian and, as you see, I cannot speak the dialect."

She conveyed this to her grandfather, who answered, "In Gallura the dialect is different."

As there were many dialects on the island, completely different the one from the other, I could not argue the point. My silence doubled the bandit's suspicion, and he asked through Theresina:

"Then you admit your guilt? May I ask the reason for the crime?"

"No!" I protested emphatically. "I assure you I didn't even know you had a brother, and as I told you before I am not a Sardinian."

"Then what are you and why are you prowling around these hills?"

"I am a traveler," I answered. "An American citizen on my way to Nuoro."

When this was translated by the alert little Theresina both men laughed for several minutes and pointed at my clothing. In order to attract less attention I had, several weeks back, discarded my continental clothes for a rough homespun native costume and sheepskin coat. As they were also dressed in this fashion I saw no reason why they should ridicule me, so asked our interpreter rather sharply to explain such uncalled-for mirth.

"They are laughing because you say you are an American."

"And why should I not say that?"

"Because we know that Americans do not dress like Sardinian mountain men in poor homespun clothes, nor do they wander about our island on foot with a donkey. Americans are rich and ride in automobiles. They do not have mustaches. No, my grandfather is sure you are the man from Gallura, and I also think so because you do not tell the truth, but I will be kind to you until you die."

I thanked her. Things certainly looked rather bad. I had deliberately made myself look as much like the natives as possible in costume and my mustache seemed to clinch the matter.

"Tell your grandfather," I said, "that if he lets me go I will pay him well."

"No, no!" she answered without translating. "If I tell him that he will kill you right away. We are not thieves, we do not rob, we want only our revenge."

This from a tot of her age! I felt my chances growing slim, indeed. The two men ceased their laughter and the older one became thoughtful. Finally he spoke and Theresina repeated in Italian:

"Our guest claims that he is not the man whom I seek from Gallura. Our guest says that he is an American. While I do not believe his words, it is the code that every creature—man, woman, child or beast—is entitled to justice. In three days returns one of our villagers who has been to America. He shall determine the quality of truth spoken by the gentleman. If he is not an American we shall consider his statements as false and he must die. Until then he is to be considered our honored, if forcibly-detained, guest." So saying he left the room, followed by the guard and our brave little interpreter, to whom I had already become quite attached.

I was alone but a few minutes when Theresina came tripping in with a large tray of smoking food and a bottle of red wine, which she placed on the table. I had often heard of condemned criminals eating large meals before their execution, but I had always felt that the proximity of death would take my appetite away. I was wrong; my appetite was splendid, and with superhuman effort I dragged myself to the table and began to eat and drink. My waitress perched herself on the bed and watched me for some time in silence. Finally she exclaimed, "But you are a strange one, you do not eat with your knife; perhaps you are afraid of cutting your mouth!"

I was far too interested in the savoury leg of a well-roasted lamb and the excellent wine to answer. After I had finished my meal Theresina fetched a pack of cigarettes, my cigarettes, so I took for granted that the poor old donkey and all my belongings had been confiscated. However, I was thankful they had at least left me something to smoke. As my watch had stopped I asked the hour.

"Bedtime," was the reply, and, taking the tray, my little companion bade me good-night and withdrew.

The following two days I received excellent treatment, and plenty of good food and wine from my delightful little Theresina, with whom I had become great friends. She told me many interesting tales of the mountains, the bandits, etc., and assured me that if I could prove I was an American and not the man from Gallura who had killed her great-uncle, everything would be all right.

The third morning I was awakened by a knock at the door. A fat fellow, dressed partly in European, partly in Sardinian clothes, entered.

"Hello, boy!" he greeted. "You American man?" I nodded the affirmative. "I also American man; I been two years in Brooklyn." So saying, he came over and shook hands as though I was a long-lost brother. "Ever been to Brooklyn?" he asked. Fortunately I had.

"I like American cigarette," he ventured. Fortunately I had them.

"What you doing up here with a donkey and dressed like that?" he asked presently. I explained, and he understood more easily than I had hoped. "Yes," he said, "I know some folks from over there got funny ways. You got passport?" I showed him my passport, which he studied for a moment, then exclaimed, "You all right. I fix it O.K."

He went out to fix it and, indeed, it was "O.K.," for in a few minutes the old man, the guard and Theresina entered, and all three shook my hands warmly. Theresina gave me a little peck of a kiss on the cheek. The grandfather spoke:

"Tonight there will be banqueting in honor of our guest; tomorrow at sunrise he will continue his journey."

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Once Overs —:— —:— *By C. D. Batchelor*

"What period does she represent?"
"I think she's an exclamation point."

Answers to Questions on Science Page

1. The Arthropoda, meaning jointed-footed. All have jointed bodies and jointed legs.
2. No. Only the Hemiptera, including the half-winged or wingless species, such as lice, cicidas and their kind, are bugs.
3. Three: Myriapoda, meaning many-legged; Arachnida, the Greek word for spiders and their kind; and Hexapoda, meaning six-legged.
4. Yes, the many-legged kind.
5. Yes. They belong with spiders and scorpions to the Arachnida.
6. Spiders have eight legs, flies six.
7. One pair of true wings, the other pair being rudimentary.
8. A moth's antennae are feather-shaped, a butterfly's are blunt, or enlarged at the end.
9. Counting individuals, or species, there are about four times as many Arthropoda as all other animals combined.
10. By means of eggs.

A gown of Limerick lace 300 years old was worn by the infant son of the Hon. and Mrs. Nigel Orde-Powlett at the christening at Wemsleydale, Eng., recently.

With 20,000 tons of Canadian wheat on hand and supplies of the native grain plentiful, flour mills in the Shanghai district of China are operating at capacity.

darkness, without thought or fear, toward the motionless figure beyond.

"Eleanor!"

Frenzy, of course. I might have known that I could ever cross that room. In an instant I found myself linked to a body that bore me down. But frenzy lends strength. Somehow, I had gripped his wrist and, for a moment, was able to hold back the muscles

like a wind. Cries of men utterly unnerved, feet stumbling toward the passage-way.

Somewhere I heard Morse's voice above the scuffle; he had managed to rally his men at the door. A ray of light, like a heathen arm, streaked here and there across the deserted room, above a tangle of bodies and broken wood, landed upon and held fixed the form of a man who, at this

emerged into the library. It was a confusion, I believe, that the others shared—a tangled group of sorcerers, all of us, as we stood in the sunlight.

But the fantasies passed. Eleanor, having been temporarily cared for, and other medical aid summoned, I gave what help I could to those who needed it. Morse's left arm was disabled, Stanley and another had

I say "unmistakable trace," because, as time again, it became apparent that one leg was soaked with blood, and, from the ugly smile in which he held it, was evidently broken. One dirked, although not by any token of expression, that he must be suffer-

was the only unmistakable trace he showed of the fight, and certainly, among the rest of us, he seemed the least concerned.

Her recovery, however, and our subsequent marriage, for all their importance to Eleanor and myself, form no part of the history we have been considering. To return to the matter at issue, some two months after Carl Ballion's death, on an evening after dinner as I sat reviewing, idly enough, the day's affairs, my servant announced Capt. Norse, and I rose eagerly to welcome the slight, somewhat jaunty figure that entered.

CHAPTER XXIV

IT WAS the first time I had seen him since the affair at Greyhouse for Eleanor and I had been away on our honeymoon and when we had returned we learned he was on the continent resting up. We greeted each other eagerly, naturally, not only because of the events in which we all had shared but because there were some aspects of the case I had never had explained to me. For instance, I wanted to know why he had suspected Carl Ballion. He crossed his legs and lit his pipe before replying. Then he began:

"Two things: Francis Ballion's offhand remark that he was a member of the Bagllone family, and the fact that he had surrounded himself with a collection bearing on the period of his family's greatness—an evil greatness, you must remember.

"Well, then, admit some lingering survival, some telescoping of time, and that Francis Ballion, account for it as one might, exemplified the Renaissance—what was the essential characteristic of that epoch? And I considered it Individualism, manifesting itself in every form of thought, therefore, in essence, opposed to conventional restraint, discipline, or ideals—in a word, from the normal standpoint, lawless. But if lawless, then often unscrupulous, subtle, brilliant, daring.

"All this applied to and explained Francis Ballion; but I should have come no further, were it not that I was impressed by the physical resemblance between him and Carl.

"Moreover, I could not rid myself of the impression that, in this case, two and two did not make four. An unworn glove on Celia's bed, the strangling-thong laid out in full view by the driveway, footprints that were not Francis Ballion's—these things looked queer. Besides, I could not forget Hasta's expression as he stood at the door of Celia's room. I'm sure you remember.

"Well, in this irritated, uneasy state, I went back to the library afterward with at least this much in mind—that I was intrigued as to the whereabouts of Bellamy Green collection, of which everybody had heard. It was then, with no particular purpose, that I uncovered the rack and found the first actual clew."

"You refer to what?" I asked.

"The moisture of the wrist-straps."

At this point I interrupted him.

"It's a fact, then, that torture was used?"

"Unspeakable torture," replied Norse, "and not only the rack, as we discovered on exhuming the body, which as you know had been immured in the underground vault. Francis Ballion was broken inch by inch, and then dispatched when the confession had been obtained.

"But, if the rack had been used, this could only have occurred during the preceding night, and there was but one person to whom torture could have been applied, for, with the exception of Francis, all others who had entered the room were present. Then I remembered those marks evidently made with a finger nail on the paper that bore his signature.

"It was all a cobweb theory, but if assumed for the moment to be accurate, then Francis Ballion's body had not been removed from Greyhouse. Two police officers were outside, and it was therefore utterly impossible to have smuggled out a body. For a similar reason this body, admitting its existence, would be probably either in the library or in a hidden space adjoining it. And here was a supposition that might account for not finding the gem collection. You recall how I investigated the cellar, how I returned that night in search of plans of the house, and how everything was in vain, because of the ingenuity used in taking the corner foundation of the house itself as an entrance to the underground passage.

"It was now that the possibility of Carl Ballion's guilt first dawned. He benefited by the death of his brother, and also indirectly by that of his sister-in-law. He knew of the strained relations between them and of the fears she expressed. It would not be impossible to fasten the guilt on Francis. It would not have been impossible for him to leave the banquet he was attending in time to commit the murder of Celia. It was he who had been closeted with his brother during that evening."

"But," I interposed, "if he knew of Mrs. Starnforth—"

"I'm certain," answered Norse, "that he did not. Otherwise, he would have found means to silence her. Ames, when I consider the coolness of that man, I'm dazzled. Though, too, of his hapless fool, even inclined to an expert witness!"

Norse laughed, for a moment, absently, between puffs at his pipe, as one who shrugs off a useless regret, and continued:

"No, one cannot get away from heredity. The Ballones were unscrupulous scoundrels, and the sinister strain in their blood was handed down, along with their extravagance, their intellectual keenness, their lack of scruples. That was my hypothesis, and as I worked on I kept stumbling over details that fitted nicely into that theory. Even those meaningless scratches on the carved face of the Medusa fitted in—but too late to be of help to Francis."

Norse paused, absent-mindedly knocking the ashes from his pipe.

"What," I asked breathlessly, "was the thing that you saw Carl Ballion do—the thing that made you certain of his guilt?"

"You may recall," Norse replied, "that I looked somewhat perturbed when you let me into the house on the night when I began my secret investigation. The point is, I had seen Carl Ballion emerge from the narrow door—the Door of Death—which had been closed behind him. It was immediately after I had shown you my light, and was coming around to the door.

"Now I knew that Carl Ballion was ostensibly absent that night from Greyhouse. What was he doing here, then, at this hour, creeping out like a thief when the house was dark, and by so strange an exit? It seemed a re-enactment of what might have occurred before. Then, as you know, there followed the discovery of Eleanor's bloodstained handkerchief. Carl Ballion was putting the finishing touches to his crime—or so he thought. In reality, that last touch finished him.

"It was from this time on that I definitely suspected him and every ensuing event confirmed it—Hasta's behavior with you, the dried leather of the rack, the discovery of a body in Francis Ballion's clothes, yet indicating a form of suicide that struck me as peculiar and far-fetched. Then came the letter from Mrs. Starnforth, establishing Francis Ballion's innocence. The gem collection remained lost, but an item of it was put into the market surreptitiously. I discovered that Carl had debts, and I knew of the difficulty in settling the two estates. This, in connection with the incident of your car, formed my strongest evidence."

"How so?" I asked.

"Because it confirmed what I already

"Yes. It appears to have been a clever grave robbery. I don't think it was anything worse.

"How shall we consider Carl and Francis Ballion?" he went on—"as singular examples of heredity? As actual reincarnations of a familiar type? As phantoms of another time? We can only wonder."

Years have passed since then. But, oddly enough, Eleanor has never brought herself to dispose of Greyhouse. It stands lofty and beautiful as ever, and untouched, though closed for the most part. Sometimes we return for a day to wander through its splendid rooms and feel once more its strange power.

And the belief grows in me, because it is so well built and magnificently adorned, with much worth treasuring, that our children and grandchildren will preserve it and return also to wonder at it from time to time; though, of course, to live there is out of the question.

(The End)

WIVES OF THE PRESIDENTS

By J. P. Glass

The Intellectual Mrs. Garfield, Who Helped James A. Garfield to Prepare His Speeches and Lectures

AFTER James A. Garfield had been elected to the Presidency in 1880 some one asked Mrs. Garfield if she was not looking forward to life in the White House.

That wise woman had a vision of the cares and responsibilities that fall upon both the Chief Executive and his wife.

"No," she replied. "I can only hope that it will not be altogether unhappy."

It turned out to be worse than she expected. On July 2, 1882, while she was at Long Branch, N. J. recuperating from a severe illness, the President was shot down by the crazed Charles Guiteau, a disappointed office seeker, as he was entering the Baltimore & Potomac station in Washington to take a train for a ten-day trip in New England which was to culminate in attendance at the commencement exercises of his alma mater, Williams College, at Williamstown, Mass.

The wounded man's first thought was of his wife.

"Send a message to Mrs. Garfield," was his instruction. "Tell her I am seriously hurt, how seriously I cannot say. I am myself and hope she will come to me soon. I send my love."

In the hours that followed it was apparent that his hope that "she will come to me soon" was chief among the emotions which racked him in that bitter crisis. In his room at the White House, whither he had been removed, he lay with eyes and ears open for Mrs. Garfield's return.

At Long Branch and throughout the President's long and unsuccessful battle for life, Lucretia Garfield showed the indomitable spirit which had made her so big a factor in her husband's career.

Taking the news of the shooting to her, Judge Advocate-General Swain attempted to conceal the real nature of the thing, for she still was weak and wasted from her illness. However, it was impossible. She rejected his kindly fictions. "Tell me the truth," she said, and when she heard the story, set off at once for Washington.

The hours meantime passed painfully for Mr. Garfield. Her arrival was delayed. An accident to the engine of her train had lengthened her journey. But when the wheels of her carriage at last sounded in the White House drive, it was

"Tell me the truth," she said.

the President's listening ears that first heard them.

"That's my wife," he murmured. "God bless her!"

His face brightened, his condition which had been critical, took a turn for the better. For a time it was thought he would recover.

All the world from that time on knew Mrs. Garfield as a tireless ministering guardian of the wounded President. She faced the situation heroically from start to finish. When on September 19 he finally died at Elberon, N. J., where he had been taken in the hope that the sea air might help him, she was led bravely silent from the death chamber by Miss Lulu Rockwell, a relative.

She had met Garfield more than thirty years before, when they were boy and girl in Geauga Seminary at Chester, O. It was there that Garfield had gone to start his education after he had been miraculously saved from drowning when accidentally thrown from the canal boat on which he was working and had resolved to "make more of his life."

Perhaps Lucretia Rudolph paid little attention to the tall, awkward youth. As for him, he regarded her with quiet admiration which he was too shy to voice. She not only was attractive-looking. She was the most intelligent girl in the seminary.

Their pathways were to cross and recross and finally merge. From Geauga, Garfield went to Hiram College. So did Lucretia Rudolph. There their acquaintance progressed so much that when he later entered Williams College to complete his studies they exchanged letters.

Back to Hiram came Garfield first to be professor of ancient languages and literature and then president. Lucretia now was also a teacher in the school. Friendship changed to love. They were married November 11, 1858, and went to housekeeping in a little cottage near the campus.

Lucretia Garfield was one of the few wives of the Presidents who could be classed as a really intellectual type. Henceforth she figured largely in his career. When he was to deliver a speech or a lecture she gathered all possible data for him and she discussed his material with him before he whipped it into form.

He had been her Latin teacher. She taught the languages to her sons. After he was elected to Congress she spent more time in the Congressional Library searching for books to carry home than she did at social affairs. Her mind was philosophic and finely poised and she was a charming conversationalist. She was tall and fine-looking, with gentle, glowing black eyes.

Born the daughter of Zeb Rudolph, a Portage county farmer, living near Hiram, she contributed her full share in the partnership which led Garfield to a major-generalship in the Civil War, and to be Congressman, Senator and President.

She was the mother of seven children.

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SENSE AND RESOLUTION

Goodbye, old year, without a tear. Adieu, adieu, I'm thru with you. While striving hard to keep afloat, my aching feet did get my goat. Thru sunshine fair and pouring rain, each pedal nerve was racked with pain. I'm turning now a brand new leaf and bid farewell to all my grief. For footaches sore there's one solution; it calls for sense and resolution. In every walk of daily life, sound feet alone survive the strife. Such feet depend upon the shoes, that active men and women choose. Good shoes designed to stand the march, are built with Walk-Over Main Spring Arch. They're shoes that help the feet to health and keep you on the road to wealth. They hold the arch, their fit is neat, as stylishly they dress the feet. When Jesberg's expert does his work, feet seldom are inclined to shirk. My foot-troubles all should now dissolve: I'll act at once on this resolve. To start the New Year alive with pep, in shoes that pep my every step.

Main-Spring Arch Shoes
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I was alone but a few minutes when Theresina came tripping in with a large tray of smoking food and a bottle of red wine, which she placed on the table. I had often heard of condemned criminals eating large meals before their execution, but I had always felt that the proximity of death would take my appetite away. I was wrong; my appetite was splendid, and with superhuman effort I dragged myself to the table and

were not on the right road. Sure enough, on reaching the top of the hill I saw a fire burning far off in the valley on the opposite side. From my high vantage point many miles in every direction were visible, but not a village was in sight.

Down we climbed in the direction of the smoke, for there was nothing to do but find out where we had wandered to

THE DOOR OF DEATH

By John Esteven

SYNOPSIS: Francis Ballion, to whom circumstances point as the murderer of his wife, Celia, after denying guilt, sends to officials investigating the case a letter confessing to the crime and stating that he is about to kill himself. His body is found a few days later. Carl, his brother, has believed him innocent, and Norse, a police official, has taken the same view. Dr. Ames, a friend of Eleanor Graham, the murdered woman's sister, has been convinced from the first of Ballion's guilt. At Miss Graham's request, he remains at the Ballion home, Greyhouse, to attend a servant, who is ill. There he suffers a blow to his own hopes when he learns that Eleanor and Carl are to be married. He comes to the conclusion that Hasta, the butler, knows something about the crime. Norse becomes convinced that it is unsafe for the doctor to remain at Greyhouse, but his warning is unheeded. One night Ames narrowly escapes death when his car goes over an embankment. Later he learns that the steering gear has been tampered with.

CONCLUSION

CHAPTER XIII

I DID not report this incident to Norse when I called him up by phone next morning. The more I thought about it, the more preposterous it seemed, and I did not care to be treated to sarcasm. On the other hand, I was very much interested to know if anything had been heard of my would-be assassin of yesterday who had filed the steering-gear.

Norse's reply to this was a blank. No trace had been found. It was hardly to be expected, he added; and went on to repeat the advice of Roose, that I should leave town for a while.

"Somebody wants to kill you, and I'm not sure I can prevent it, if you remain at Greyhouse," he said.

"Have you no suspicions as to who that person is?"

"I have. I connect your accident yesterday with the Ballion crime; in fact, I warned you that something might happen. I've hinted that you're persona non grata at Greyhouse. I will do all I can for you. But, if you decide to remain, it's on your own responsibility. Won't you go?"

"I will not," I answered stubbornly.

"If you'll pardon the intrusion," he retorted, "I think there's something that interests you at Greyhouse besides your work; and if I were you, I'd shun that pitfall as I would the devil."

At this point I changed the subject. "By the way, Norse, are you sure that Francis Ballion is actually dead?"

"Absolutely." And there the matter rested.

I took, however, what precautions I could. Having purchased a new car, I engaged as chauffeur one of Norse's proteges, who could do something more than drive; the foreman at the garage was given instructions, and there was no longer any question of parking outside. In addition to preventing any repeated interference with the car, which was hardly likely, this arrangement with the chauffeur had the supreme value, in Norse's opinion, of giving me a companion on the road from town to Greyhouse.

But the days passed. Nothing happened. The case of Francis Ballion began to fade from mind. I stayed on at Greyhouse, in spite of Norse's warning. And so did Eleanor. The truth is that the place exerted a strong attraction on both of us. Over and above all that it was something to watch her beauty, which seemed to develop from day to day into greater arrogance and luxuriousness; to enjoy, with the fever of thirst, her infinite charm of expression or movement. These were crumbs to my famine, and I could not do without them; but they were dearly purchased.

Carl Ballion, whatever he may have thought at first, no longer considered me a rival. His superiority was too evident, and I admitted soon enough that he had something to offer that eclipsed anything of mine. She would be mistress of Greyhouse, if she married him. They discussed it openly, the parties they would give, rearrangement of decoration, further development of the grounds. He urged her to announce their engagement, and I could see that her repugnance was wearing thin. At length, she consented to do so at the beginning of the month.

"And our wedding?" asked Carl.

"In May," she answered with decision, her eyes full on him.

Mentally I was shocked. I could have waxed eloquent about funeral baked meats and marriage tables. I understood how such a thing coarsened and compromised her. But I had traveled too far along the same path myself to feel anything more than bafflement and envy thrice doubled. It was then that thought whispered a remedy that, though put off, kept recurring. It was that the marriage would never happen, if Carl Ballion died.

"You don't congratulate us," I heard him say; and, plucking up a smile from somewhere, I managed to respond that congratulations were too deep for words.

"The doctor looks pensive," he laughed. "But we'll invite him out for week-ends in the summer. And perhaps he'll have learned enough to drive his car by then. What, Ames?"

"Perhaps," I agreed. And privately I decided that she no longer needed a protector at Greyhouse.

It should be noted that Francis Ballion's library at this time was no longer closed. Although the locks of the doors had been repaired, the latter stood open, and it was here that Eleanor, Carl, and I spent the better part of several evenings. Here also I used to withdraw occasionally to read. It was a most interesting place.

In spite of my feelings toward Carl Ballion, which included everything about him in a comprehensive dislike, I must confess that his anecdotes relative to various items of his brother's collection were fascinating; and these led to other anecdotes of history. That standard carried by John de Medici of the Black Bands, that helmet worn by Cesare Borgia, that bracelet that had belonged to Caterina Sforza. He had the faculty of making events live, and, though he always quoted his brother as his authority for facts, he had a peculiarly artistic talent for narrative.

One evening in the library Eleanor grew curious about the torture instruments and asked Carl for a description. There was nothing odd about this, for the things with their grim past were interesting. What was, however, startling and indeed terrible, was the evident relish they both took in the recital. It distressed and horrified me, this common liking, especially when considered in relation to these two beings, both highly intelligent, the one beautiful, the other handsome, with so many finer things to admire and go into raptures over.

This weird facet of their minds was one of the things which decided me to leave Greyhouse and I was determined to tell Eleanor the very next morning that I was leaving for good when something came up to prevent it. Anne Roderick, the loyal maid, suffered a heart attack. I was sitting in my room that night when there came a knock at the door.

"Who is it?" I called, Norse's warning flashing suddenly through my mind.

"It's I—Eleanor. Please come at once to Anne's room. She has fainted."

I threw on a dressing gown and prepared to leave the room when I bethought myself of the automatic Roose had given me; and I slipped it in my pocket.

However, the precaution was needless. The maid was really ill and I spent some anxious hours at her bedside that night before she came out of the spell. It was early morning before I rose wearily, gave some instructions to Eleanor, who had come in, and prepared to leave. She placed her hand on my arm.

"Is it really serious?" she asked, with genuine distress in her voice. She was very fond of Roderick.

"I'm afraid it is," I replied. "I think she ought to have a nurse immediately."

"I'll phone at once," she replied. Then, hesitantly: "You'll stay, won't you, until the crisis is past? You are familiar with the case and besides, she has great confidence in you." There was entreaty in the voice and in the dark eyes that serached mine so pleadingly. There was no help for it.

"Yes," I said in a low voice. "I'll stay; but she'll be all right in a few days and then I must go. I have some patients in town who may need me some night and—and—well you know I'm doing no good here."

The hand on my arm tightened. "No good," she whispered. "You have no idea how much you are needed." And she was gone.

Roderick rallied, but she continued to be a very sick woman. I cursed the illness which gripped her and which held me there but it did furnish me with a new insight into the woman's loyalty to Eleanor and we had many long chats together. The engagement between Carl and Eleanor dismayed her and we discussed it more than once.

"I don't understand," she kept repeating. "I can't believe it. His brother—and now—this soon! It can't be—tell me, sir, that it isn't true!"

I had no comfort to give, and she went on in a low voice, as if to herself, "I suppose Mr. Ballion's a good man, but it's the same blood, the same strange blood. I've never been able to like him, handsome as he is. I'm afraid he'll be cruel to her. His lips—it shows there. And she loves him. I thought this summer it was you she cared for. Now she'll go on living here after the wedding, and that means we can't be together. I don't want to live in Greyhouse."

She broke off, and more timidly: "I suppose it's lying in bed that gives me queer notions. I've the feeling it isn't Miss Eleanor at all—she's that changed, even to look at her. She's gotten so worldy and unkind."

Then she changed the subject abruptly and asked me a sudden question: "Tell me, sir, do you really think that Francis Ballion died?"

And as Norse had answered, but without the latter's assurance, I told her it was certain.

"So everyone says," she demurred, "and yet it's hard to believe that as strong a man as that could really die. Sometimes I feel as if he were in the house—waiting. As if . . . Please," she cried, "let me go away."

I soothed her as best I could, and promised.

CHAPTER XIV

WHAT I recall, however, most distinctly at the period is not so much separate scenes and conversations as one emotion that informed and stained everything else. It was my bitter hatred for Carl Ballion. And there was no use calling it unreasonable, or admitting that he had done nothing except prove himself a better man to Eleanor's eyes.

The sense of my inferiority maddened me, and more often, more firmly, the thought insinuated itself that a possible and facile remedy was at hand, if I cared to use it, and that no one was better situated to use it than I.

At all events, there was a certain outlet in considering the matter and playing theoretically with the idea. I had access to every possible drug, but there was also a question as to whether bacteria might not prove more expedient. My reputation placed me above suspicion, and I was known, moreover, as a friend of Ballion's. Besides, he not infrequently asked me to prescribe for some trifling ailment, and I therefore had every facility.

I went into the library to turn the problem over in my mind. Devilish things seemed to come easier in there. Outwardly, I was cool, but actually on fire. I suppose the damned may burn in such invisible flames, but with this difference, that relief through action is denied them, whereas for me there were plans I could make, and a deed to be accomplished.

I paced slowly up and down the room, now and then stopping to look at some curio, but actually not seeing it. There appeared, instead, ways and means. In this state of mind I found myself looking at the carved face of the Medusa before the narrow door, absently staring at it. Perhaps some vague memory of Norse's interest in this particular stone recurred, but my real thought was on other things, when, looking up, I saw that Carl Ballion had entered and was standing close to me.

"Interesting stone," he observed. "It seems to distract your attention from reading."

"Why, yes," I answered, and for lack of anything better. "Ten days ago, Norse was particularly impressed by it."

"Ah, he was? Well, I've often wondered myself at Francis' superstition in setting that thing at the threshold of his Door of Death. It's a bad place for us to be standing, isn't it? But then we're not superstitious."

He moved slowly away and I looked after him, wondering at the coolness of my mind. There walked my prospective victim. A few more days he would walk no more. There would be precipitancy about the deed, no slip of the tongue, no temper. Eleanor should never have the satisfaction of smiling over me with him in the years to come. I wondered idly whether she would inherit Greyhouse at his death. She would certainly purchase it in any case, and then, if I managed skillfully perhaps.

A telephone call drove further speculation out of mind. It was from Norse asking me to call at his office the following day.

I spent the next day in a turmoil between old and new, between two selves. All that remained of conscience stood out, a shaken barrier, to meet the storm of alien purposes and passions. Drawn, as it were, by some mesmeric influence, I had labored to prepare a culture that would do its work in forty-eight hours if consumed in food, and diagnosis would leave no one the wiser.

But then, though weak with the strain of will against desire, I had destroyed the poison, horrified at the moral depravation it implied, though still at grips with temptation and as yet uncertain of self-mastery.

In view of what happened later, my decision one way or another would have made, of course, no practical difference; but, at all events, my conscience is free of prepared and intended crime.

Norse sat at his desk when I entered, and only looked up to nod.

"How are your Renaissance studies?" I asked; but he shook his head and went on writing. Then, gathering the sheets of paper together, he rang for a stenographer, handed them over with the remark: "Type 'Very confidential,'" and turned to me.

"No further 'accidents,' I suppose?"

"No," I said, wondering why he stared at me.

"So much the better, then." And dismissing the topic: "You asked about my Renaissance studies. They're progressing slowly. I want to show you something."

He drew from his desk a small box. It contained a large ring, richly encrusted with

darkness, without thought or fear, toward the motionless figure beyond.

"Eleanor!"

Frenzy, of course. I might have known that I could ever cross that room. In an instant I found myself linked to a body that bore me down. But frenzy lends strength. Somehow, I had gripped his wrist and, for a moment, was able to hold back the muscles that surged against me like steel coils.

It was enough. As quickly as he had sprung, he released me and was gone. A fifth shot rang out, and Norse, who had followed me, sank down upon me. A breath at my ear murmured, "Keep still."

What the effect of this ruse would have been I don't know, for, at that moment, came a confusion of voices and shouts from above along the tunnel. Norse fired, I believe at random.

There sounded a ringing of feet on the steel bars of the ladder; rays of light shot from the mouth of the passage; a hurry of people above, descending and nearing us.

"Look out in the tunnel," cried Norse.

The warning was not superfluous, but it came too late. A babel of noise intensified, as if in a megaphone; roared suddenly—cries, oaths, scuffle of feet, vociferation, every token of struggle at close quarters.

We were up, by now, and, in the vague penumbra of light from some electric torch, gained the impression of a knotted mass blocking the passage and swaying back and forth.

"Let him through," called Norse; "nail him when he gets to the ladder." But his voice mingled without effect in the growing tumult. "Here!" he shouted at me, "We must get Eleanor Graham from in front of that opening."

We found the pillar; the cords yielded somehow; I felt the limpness of her body as we dragged it back into an angle of the place, but whether alive or dead there was no time to learn. For we had acted none too soon.

Another reinforcement was now descending. Whereupon, a figure, a darker blot in the almost complete obscurity shook himself loose from the scrimmage and bounded back with such violence that he sent Norse reeling against me.

Then once more, but this time into the tunnel choked with men, Carl Ballion fired.

There followed somewhere a cry, long-drawn, an explosion of voices, yells of "He's down! Look out, don't trample him." And then everything submerged in a fusillade of shots.

Into the room now burst a number of men. But here Norse's voice dominated: "use your flashlights! Redsby, guard the door—Roose, the ladder. And now at him, you others! Beat him down!"

A voice rose in the darkness, suave, urbanely modulated, in contrast, with the fever and confusion. "Oh, so easy! Only a stroke or two! Here I am—Carl Ballion!"

If what followed were not personal experience, a report of it would seem to me incredible. There commenced in the flickering succession of rays and shadows, an obscure battle of one against many, a phantom combat, as if this were indeed a place where ghosts continued the rage and violence of life. A surge of pent-up sound. A leaping and shifting of forms. A face lightning-sharp and then gone. A fist lifted to strike. Gasps for breath. Oaths of baffle-ment or pain.

Oddly enough, the advantage for Ballion lay in the very numbers he fought against. Although armed, his assailants could not use their weapons without greater risk to themselves than him, whereas each of his blows scored.

Moreover, he had the advantage of the dark. The flashlights tossed here and there in the melee, uncertain and futile. Some were broken. And, when I groped along the wall to where I had seen him reach for the electrical control, I found that he had twisted it off.

Thus the struggle resolved itself into one at close quarters, and hit or miss. But, for all that, the miracle remained that one man stood against fifteen, held them on even terms, and brought down one after the other.

Strong as he was—and I, although an average man, had been helpless against him—his agility served him even more at this point. He would free himself from a group, be lost momentarily in the darkness, and then suddenly, in a different part of the room, someone would be struck off guard by an invisible hand, and more likely than not be hurled down.

By these tactics he kept them scattered, confused, and more than once at grips with each other. No one could hear him, no one singly could resist him. His quickness, strength, and resourcefulness seemed inexhaustible.

And it became apparent that he took a fierce pleasure in this fight, even welcomed it. From time to time he would call out the same phrase, his voice ringing ominously, "Here I am—Carl Ballion!"

It was a lure as well as a boast. Flinging themselves in that direction, raking the blackness with their torches, the men would find nothing; but, an instant later, someone straggling from the others would be beaten down by his fist or revolver-butt.

"Form a circle," shouted Norse. "Get your lights on him and close in! Are you going to let yourselves be beaten?"

But that circle was never formed. There sounded, roar upon roar, the crash of a revolver. A bullet flattened itself next to me. Someone fell, bringing one of the remaining stands to the pavement with a splintering of glass.

The reason was evident. Ballion had been able to get possession of one of the police automatics. And panic swept down like a wind. Cries of men utterly unnerved, feet stumbling toward the passage-way.

Somewhere I heard Norse's voice above the scuffle; he had managed to rally his men at the door. A ray of light, like a fleshless arm, streached here and there across the deserted room, above a tangle of bodies and broken wood, flashed upon and held fixed the form of a man who, at the very moment, tossed away an empty revolver.

This time it held him inexorably. The face showed white, eager, smiling; his ruffled hair had formed in curls above the forehead—a singularly youthful face, for all its hawk-like intensity. Stretching out one hand, he laughed, springing full at the light and the group confronting him.

Norse fired. I saw him swerve to one side, but his momentum carried. And then came darkness once more, and his voice choked off in a smother of bodies . . .

"Carl Ballion!"

In the dank, thick air, hard to breathe and heavy with the stench of powder fumes, I felt a growing weakness, to which also the wound in my shoulder contributed. Hence, the remainder of that scene, until we emerged in the room above, has left only a dim impression.

I recall that the lights were suddenly turned on and disclosed a sight comparable only to what I was afterward to witness in France—the effect of shrapnel exploding in a crowded space. Six men were dead amid the wreckage of splintered stands and glass cases, several more were badly wounded, and everyone showed some trace of the struggle. It was an unspeakably hideous shambles.

CHAPTER XXIII

HARSH, bloodstained faces peered down at the figure of Eleanor, over whom Norse and I were bending.

"She's alive," I remember muttering, again and again, in a dazed way, not comprehending my own vast relief when her first pulse-throb revealed the truth.

Dimly also I remember helping to carry her through the smoke-filled tunnel, and recall the strange brightness of light as we emerged into the library. It was a condition, I believe, that the others shared—a haggard group of scarecrows, all of us, as we stood in the sunlight.

But the faintness passed. Eleanor, having been temporarily cared for, and other medical aid summoned, I gave what help I could to those who needed it. Norse's left arm was disabled, Redsby and another had fractured skulls, and there were various wounds that required attention.

As for Eleanor, she was apparently suffering from extreme shock and it was impossible to tell at once what the result might be. Her breathing had become regular, which augured well, but she had not regained consciousness, nor indeed did she come to herself until some hours later.

The need for these attentions was so imperative that only when I had finished with Norse's injury did I have time definitely to look back upon what had passed. Our glances met in that speechless understanding of two men who have shared mutually and survived a critical experience.

"And what," I asked, "has become of Ballion?"

We had turned the library into a first-aid ward, not so inappropriate, after all, to those old banners that hung down over us, nor to the armor ranged beneath them. Norse pointed to the hall.

"He's there. You'd better have a look. I imagine he needs anything you can do."

"I don't see why we should bother," I returned. "Any death would be too good for him."

Norse gazed absently up at the torn battle flags. "No doubt. But he's a great spirit, none the less. He makes the rest of us look small, with our petty inabilities. No, it's not sentimentalism," he added. "I'll see that he hangs fast enough."

In the hall we found a group of men about one of the chairs before the hearth. And thus I came on the prisoner, Carl Ballion.

His hands were manacled, but otherwise there was little of the prisoner implied either in his attitude or in that of his guards. A streak of blood on his forehead was the only immediate trace he showed of the fight, and certainly, among the rest of us, he seemed the least concerned.

I say "immediate trace," because, on looking again, it became apparent that one leg was soaked with blood, and, from the ugly angle in which he held it, was evidently broken. One divined, although not by any token of expression, that he must be suffering extreme pain. Otherwise, increased pallor gave an added refinement to the face that reposed on the chair cushions like an exquisitely carved mask.

His eyes fixed themselves on us.

"Well," he asked coldly, "did you enjoy the hunt?"

"You fought well," replied Norse, "if that's what you mean. You almost beat the lot of us—but not quite. We've come to see what can be done for you."

Ballion shook his head. "Nothing. I confess, though, I like your compliments. It softens the sting of losing, which, was, of course, unpardonable. But I'm glad it was you, and not one of these"—a stare included us—"that brought me down. You're a man of courage and sense, the only admirable qualities.

"You fooled me into underestimating you. I was stupid enough to consider this fellow," he glanced at me, "a danger, rather than you. Ah, well!" And, shrugging his shoulders, "Before leaving, there's one thing I would like to learn—about Eleanor. Dead?"

"No," I retorted; "she will live, in spite of your infamy."

"Faugh!" he exclaimed, "pietistic gabble! She belonged to me by every right, she broke faith and should have paid the price, in simple justice. But, as regards her, at least, I had hoped that luck would favor me—I wasted a bullet in that pillar."

He raised his manacled hands, pressing the backs of them to his lips in a gesture of chagrin, and I saw Francis Ballion's sapphire on his fingers—the sapphire I had glimpsed the night I was drugged!

"Infamy!" he repeated. "A word! I have not straddled between conventional rights and wrongs, but looked to myself. What use to life was Celia, whom I killed? She stood in my way, as did Francis. That confession of his almost fooled you, Norse. Ah, it took some persuasion before he signed."

And, pausing a moment, as if looking back, he added, "More than flesh and spirit could be thought to stand, he stood. I was proud of him—but he signed, at last."

He turned to me.

"A pity," he said, "that I miscalculated the drug that night when you sat here. Hasta's advice was right.

"I regret that I did not kill you and her. Otherwise, my only feeling is indifference; a condemned man doesn't need to bother about others. Say I loved her beauty—say I needed her wealth—in any case, a prize. I believed her superior to the soft nonsense of ethics, and thought her an ornament, a fine creature worth caring for, which is all you can expect in women. She turned out commonplace."

His head drooped, whether or not from weakness it was hard to tell, but he recovered himself. I saw that Norse was observing him sharply. He continued:

"Before I go, Norse, is there anything you'd like to ask me? I've nothing to conceal."

"We're in no hurry," said Norse.

"Ah, but I think we are. I may not be so communicative later."

"Well, then, how did you expect to carry out this attempt to kill Eleanor and the doctor without discovery?"

Ballion smiled faintly. "Their bodies, together with that of the chauffeur, would have been found in the car between here and town. Every sign of a hold-up and robbery. But I confess I didn't greatly care. I had nothing much to lose, and wanted at least the pleasure of dealing with them."

Another tremor shook him. With an effort, he drew himself erect in the chair, and in a tone of bewilderment. "You asked—? I forget what was asked."

Norse was at his side. "What's wrong? Is the pain so great? Ames, have a look at his wound."

But for a moment, Ballion roused himself. "My wound?" he said. "It's not that. I have no pain—now. Did you really believe that you could produce me in some dingy court, for boobies to stare at? Oh, no, thank you. I preferred dying at Greyhouse. My ring's the talisman. I merely waited to hear that someone . . . someone I hated was dead."

Even before Norse's finger had turned back the sapphire, disclosing a vacant cavity in the setting beneath, I had remembered Ballion's gesture of hands raised to his lips.

"Quick!" Norse said to me, "there must be some form of antidote."

It was, however, Ballion that answered. "Oh, none—none in the least, I should have been gone already. I kept myself here for the pleasure . . . for the pleasure of your company."

Norse, having leaned over him, drew back a step, and, gazing at the pale, calm face expressed, I believe, what still echoed in the mind of us all, but with a deeper significance.

"There he is: Carl Ballion!"

"Don't count me absurd," said Norse an hour later, "if I have the narrow door opened at his burial, and then closed henceforth, I hope always. Superstitions are sometimes forgotten wisdom that, in this case, it would have aided us to heed."

Several months intervened before an occasion arose where I had leisure to discuss at length with Norse the events here recorded. During that period Eleanor's condition, at first critical, had begun to mend, and at last, thanks to a naturally strong

Our Roots of Progress

(Continued from Page Seven)

was the Sacramento Valley Railroad's first conductor.

Born in Norwich, Ct., in 1817, he went to sea with a whaling and sealing fleet when only fourteen. In 1850 he sailed for San Francisco, where he obtained a position in the Customhouse.

Due to a change in administration at Washington, Bromley found himself out of a job. For awhile he served as mate aboard the Steamer Cornelia, abandoning this in favor of the horn and hide business, from which he retired in 1855.

Bromley was then offered a position as manager of a mine. He accepted and on his way to the mines decided to stop off in Sacramento.

In "Long Ago and the Later On," Bromley's volume of reminiscences, he tells us:

"I heard some talk of a railroad being started down on the R-street levee, and I thought it would be in my line to go and inspect the work. To my great surprise, I discovered in the contractor an old friend from my native town who was as pleased to see me as I was to meet him. After the usual comparison of notes and exchanges of news:

"'Now, where are you going?' said he.

"'I'm on my way to take charge of a mine up in the mountains,' said I.

"'Oh, damn the mine,' said he, forgetting for the moment his early pious training. 'You just stay here and take charge of the construction train for building this road. Your mine is an uncertainty, but this job is a sure thing.'

"His argument was convincing and I stayed with him. Upon the completion of the road the directors appointed me conductor on the passenger train, where I remained for nine years, the first conductor on the first railroad built on the west side of the continent of North America.

"The railroad was twenty-two miles long and connected Sacramento with the town of Folsom. The fare was two dollars each way, and twenty-five cents extra if the passenger neglected to provide himself with a ticket before coming on board.

"Occasionally some inquisitive passenger would inquire as to the final destination of that extra two-bits, and with the politeness which has made the railroad conductor famous the world over, I would answer that it was none of his business. All he had to do was to pay it, and I would look after its final disposition.

"There were no bell punches in those days and consequently two boards of directors died poor, but the conductor kept right on attending to his business."

Before his death early in this century Bromley had added a number of vocations to an already varied career.

In 1872 the Bohemian Club, one of the most exclusive organizations on the Pacific Coast, was formed, and shortly thereafter Bromley was asked to join. Inasmuch as the membership was made up of men distinguished in the arts, the invitation came as a great surprise to Bromley. He was held in great esteem by his fellow-members, and in 1888 California's first railroad conductor was unanimously elected to the presidency of the club.

California newspapers and railroads have developed amazingly since the days of their beginnings. The newspapers have grown in number from one in 1846 to nearly a thousand in 1929. Since 1856 the railroads have increased their mileage within the borders of the State from twenty-two and a half to more than eight thousand miles.

The handful of men who pointed the way for this remarkable development will always be remembered. Colton and Semple, the Robinsons, Judah and Bromley, pioneers all; as such California owes them an eternal debt of gratitude.

I looked over at the kneeling figure of Eleanor, her bare arms extended on the bed. "Tell him an overdose of morphine," I answered. And downstairs the nurse's shocked expression: "About Hasta, call up Capt. Norse at the police office. He'll want to know."

I managed to get to my room, but all the while there came to my ears a cry: "Arrested for the murder of Celia Ballion!"

Then, when I flushed and said nothing, he smiled, adding indolently, "The only good thing in all this is that it will get you and Miss Graham away from here."

"Do you think she will leave?" I objected.

He paused a moment, and it struck me couldn't you have told me that before?"

Whatever I answered doesn't matter now. I almost in a whisper, her lips trembling, "I do not love him. But, oh," and she spoke repeated.

. . . It wasn't easy to give up caring for him; but I understand what he is because of what I had become. And I'm afraid," she

CHAPTER XIX

"I HAD a letter this morning from Nor-

gems. The stones were an interweaving of emeralds supporting a magnificent ruby.

"To be worn on the thumb," said Norse, "a man's thumb, as was the practice at one time. What adds to its interest, however, is that it belonged to Francis Ballion's collection."

"What do you mean?"

"Why, just that. I traced the former sale of it to him. And I had my eyes open for possible reappearance on the market of some of his jewels. In fact, with a good deal of trouble, I have put together an imperfect list of the gems he possessed, but this is the only one that has come to my attention."

"Carl may have disposed of it," I said.

"Quite so, but, if he did, it was illegal, because the property is as yet in the hands of trustees. Moreover, one of them told me confidentially that the gem collection had not been found. There seems to be a good deal of difficulty, by the way, in settling this estate, because of Ballion's debts to the Graham property. Now, if Carl sold this, he knows the whereabouts of the collection and is withholding it from the trustees. If, on the other hand, we suppose the ring to have been given him by his brother, I see no need of all the secrecy used in selling it. The purchaser was a rich, if obscure, merchant, who doubtless made a good bargain. He told me that the vender was a man with a black felt hat pulled over his eyes and his coat collar turned up. The payment was in cash."

I turned to another feature of the ring transaction: "You mentioned a black felt hat."

"Yes, and I know what you are thinking of."

"I don't believe you do," I answered, "but, if you'll promise not to laugh I'll tell you." And I gave him an account of what I had seen at my window.

He remained serious enough, and remarked: "Greyhouse is an odd place, and I'll say this. It's a queer thing for a man with the resourcefulness of Francis Ballion to commit suicide by blowing off his head with a shotgun."

"Then you doubt . . ."

"Particularly a man," he interrupted me by adding, "who was innocent of the crime he was charged with."

I laughed. "Do you stick to that? First impressions are always the most indelible, aren't they?"

"Yes," he returned. "And now tell me what you think of this."

It was a short letter to Norse in a feminine hand:

"In view of published account regarding the late Francis Ballion, it may interest you to know that he could not have committed his alleged crime, for the reason that he was with me on the night of October 3 from eight o'clock until about half-past four the next morning. This is the entire truth. Why he should have left a false confession of guilt I am unable to imagine. My regard for Mr. Ballion's reputation and my hope that whoever is actually guilty may be discovered have prompted this letter, which I hope will carry conviction, even though the same reasons actuating Mr. Ballion's silence make it necessary to withhold my name."

"Anonymous," I commented. "It's interesting, but I don't know how much weight should be attached to it."

He nodded. "But the point is that it's no longer anonymous. I showed you a photograph I found in Ballion's desk on the night of my visit, and you thought it vaguely familiar. It wasn't difficult to discover the original, and, if you're still ignorant, I'll say merely that it's the wife of one of our leading actors."

At that, I recalled and mentioned the name of a woman who had been pointed out to me at the theater several months before, and whom we will call Mrs. Starnforth.

"Exactly," said Norse, "though you will consider it confidential. Upon receiving this letter, I put two and two together and went to call on Mrs. Starnforth. When I handed her the photograph, it needed no ability in reading faces to know that she was the authoress of the letter."

"And she admitted it?"

"Yes, in the end. It seems that she was deeply in love with Francis Ballion. Well, what do you think now?"

But my mind was too confused for any opinion. "It looks," I muttered, "as if you had been right all along."

He continued:

"Admitting that she tells the truth, we are still at a loss with regard to Ballion's statement—because why confess to a crime he did not commit? I don't believe chivalry would go that far. We are also at a loss as to the reason for his suicide, the sale of the ring, and the tampering with your car. For the rest, of course, her testimony strengthens my own earlier interferences. The thing's a tangle."

"But, if he didn't kill Celia Ballion, who did?" I insisted.

And here Norse closed up like a clam. "You have the various possibilities," he returned, "Hasta, Miss Graham, an unknown—do your suspecting for yourself."

Hatred for one who had been left out of this list boiled into words. "You never mention Carl Ballion," I exclaimed.

Norse looked at me steadily. "I don't, and you know why: his presence at a banquet that night, where he made a speech—above all, lack of any motive in killing Mrs. Ballion. But a third thing; you realize how utterly unjust it would be to start unfounded gossip about Carl. His entire career depends upon his being kept out of scandal. I'm not the one to start it without good cause, particularly in view of his brother's confession; and certainly you are not."

Then, taking out his watch, "It's too late for your dinner at Greyhouse. "I'm sorry. Better dine with me, and you can run out afterward."

I even stayed on after dinner, and we talked of Mrs. Starnforth and Francis Ballion. We were absorbed, however, principally by the fact that once more the hunt was on, the mystery of Celia's death unsolved, and I felt a breath of dread as to where the scent might lead. Norse had proved himself no blunderer, after all; I was conscious of an uneasy certainty that, when he struck at last, the blow would not fail. What if one of his targets should be Eleanor!

Meanwhile, I was aware of the detective's scrutiny, as if he were attempting to decide from my face whether or not he should tell me of something he considered important. But he said nothing.

And in this, as things turned out, he made a mistake that had nearly a fatal outcome.

CHAPTER XV

RAIN had set in steadily as I drove back that night to Greyhouse—steel-like splinters pecking at the windshield. It gave promise of holding on, a cold November sleet. The chauffeur predicted a siege of it, as he nosed our car along the black, winding road.

"If anyone has it in for you," remarked the chauffeur, "here's his chance. We can't

make speed. Easy to stretch a cable across the road—we couldn't see it; or to swing up on the running-board. But he'd get his belly full," and, following a jerk of the thumb, I saw a revolver on his knees.

What a strange fatality, I thought, hung over every person and thing connected with Greyhouse! It was as if surrounded by invisible outworks; once past them, you entered a zone of fear, passion, mortality. And I remembered having this sensation from the first. Normal life underwent a sort of obscuration, as if only certain rays of thought penetrated there. But they were vivid rays.

And, of a sudden, our headlights shone on the granite pillars of the gateway. We had made the drive without incident. A moment later we drew up before the lighted entrance, and on foot by the steaming radiator I gave some directions for next day. "Good night," I called, as the car backed for a turn.

Although it was after ten, I expected to find Eleanor and Carl about; but, when Hasta opened the door for me, I saw that the lights were partly off and the hall empty.

"Mr. Ballion went back early tonight," said the butler, "and Miss Graham has retired. She left a bite of supper for you and this note, sir."

He handed me a note and pointed to a small table in front of the hearth, where some logs were smoldering.

"Very thoughtful of her," I answered, and glanced at the note, which read: "We were both sorry you missed dinner—at least, with us. Carl suggested you might be hungry, and I'm leaving sandwiches for you, made with my own fair hands." Reading, I pictured her hands, shapely and strong; their image recalled the evening we had sat together before the fire. 'Carl contributed a glass of his Barbara. I'm tired and am going to bed early. Good night."

I was not hungry, but politeness demanded that I take something. Besides, as I looked down at the neat array on the little table, the thought recurred of her hands and the night when, for once, I had pressed them to my lips. Their touch, I fancied, still clung to this bread, just as for me her presence lingered in the hall. It would be good for a time to sit before the fire dreaming of her, building the future around her, warmed more by the thought of her than by the glowing hearth.

I heard Hasta's good night and murmured a reply. Carl's glass of wine fascinated me. If he sat here now, how easy in the half-light to let a certain atom fall in his glass beside mine . . .

It had, indeed, an imperial color, this vintage, a color in itself symbolic of life at its quintessential. I drank, and even the sweet bitterness of taste seemed eloquent of experience. My thought sardonically pledged Eleanor in Ballion's wine. That I drank it appeared to me also symbolic and of good omen.

Not being thirsty, I set the glass aside half-finished, and, having tasted a sandwich and lighted a cigarette, I remained luxuriously relaxed, my eyes on the fire.

What a glorious thing life was, after all, if one only chose to live; and that meant insisting on yourself getting rid of what had been drummed into your ears, and was repeated by everyone until it became a code of ethics. It meant disregarding this modern bugbear called society, except as the latter could be made useful to you. This actually; though, of course, in appearance only flattered the tyrant with lip service and kept it affable. Our obligations to society! The individual merged in society! Idea of a beehive, an ant-heap. What balderdash!

In expanding fancy I saw my days spent at Greyhouse—in part. I devised Paradise for Eleanor and myself. I saw her stand before me, growing ever into something more brilliant, more tempting, even more cruel and more beautiful. Sometimes we would laugh together about a night when Carl Ballion drained a glass with a certain flake of death in it—and no one knew except she and I.

What did she care, what did she care, with that beauty of hers, who lived or died? He had striven for her, he had lost, I had gained. That was the story. I could afford to praise him, his talent, his spirit. And, as she stood before me, radiant in a vague dream-light, I pitied him, because I lived.

It was pleasant, and yet curious how droway one became. Indeed, her figure had grown so distinct in this movement of projected thought that I could have almost fancied myself asleep, were it not that I was aware continually of the embers in the hearth, conscious also of the rain outside and of the silent hall. It must be late; I must be going up; I had intended sitting here but a few minutes.

And then, attempting to rise, I found of a sudden that I could not. There came no muscular response to the will. It passed over me with a sense of terror that I was paralyzed from the waist down.

CHAPTER XVI

A GENERAL numbness had taken possession of my limbs, so as to render them too heavy for movement, an effect that might be compared to that of being half buried. With the live part of me I strained forward again and again, only to sink back; and, for a moment, growing dread cleared the brain of that strange craving for sleep.

I realized that something sinister had been at work, an unnatural agency, but what it was I could not imagine. Besides, thought demanded too great an effort. Like a failing pulse, consciousness, as it were, throbbed between periods of lethargy. But this weight of sleep, this rising tide of sleep! Once more an instant of clarity. My eyes fell on the half-emptied glass of wine. I recalled its singular, not unpleasant bitterness of taste. I had considered its color symbolic—of what? Thought drifted away. Of what? Ah, indeed—of life!

With convulsive effort, my mind expended its strength in fighting back the shadows. Madness was in these shadows, I knew, and, after madness, oblivion—the eternal void.

Then, turning my head with an effort to assure myself, I saw a piece of white paper on the table, and thought shrank as from a lash—

Eleanor!

And I understood now. Rather than Ballion, it was she, unmasked, seen in her final colors, who had laid the snare, led me on. She who doubtless, somewhere in the silent house, sat waiting. Numbness of body became that of soul. It was as if I saw her hands presenting the glass of wine, her white pitiless hands.

So, all the time, this had been the truth that lurked in the shadows of Greyhouse, a part of that spirit haunting here. Whether she acted in chief or as accomplice of another made no difference. She remained for me sovereign even now, superb, beyond good and evil, exalted in herself. And I thought, if—I could but see her again, one glimpse of her through this rising darkness, a ray to clear the mind once more, that then . . . I had forgotten, forgotten thought. It was too weary a matter to resist the weight and urge of what bore me down. Better to sleep, to yield. Reality became dream.

Curiously enough, however, I remained conscious of my whereabouts, knew that I was sitting before the hearth, and that to breathe was difficult; but the knowledge as to why I sat there and the sense of my predicament had passed. In the timelessness of a dream, I merely knew that I was here, beset by a dim foreboding, and in that eerie remembrance of light that accompanies dreams.

Then I became gradually aware of something. I felt that I was no longer alone; that in the chair next me, wide and deep as mine, someone was seated. Someone. Forcing a glance, I could see nothing, and yet I knew. In the chill of suspense, breath came slow; I seemed to have grown rigid; the minutes dragged by. I strove to keep my look averted from the chair, which continued to draw it back.

Then, gazing in spite of myself, I saw all at once, raised from within, a hand, grasping the chair arm. A hand of long, white fingers, now spread out, now closing restlessly, and on one of them was a ring set with a large sapphire.

I do not know why a hand should have instilled such horror, the sense of loneliness, of deadly silence, of helplessness. It recalled in its slow movement the leisure of a cat unsheathing its claws, tense, but deliberate.

The hand ceased its movement, gripped the chair; something stirred in the shadow. And then suddenly I beheld a face thrust from the darkness. There followed blindness, as at the cutting off of light, but not before I had recognized that face, or knew who it was that had risen and stood near. I heard a low, harsh laugh. A breath fell like the heavy vapor of dank earth.

Thus I sat blind, spellbound with fear, beneath the form that was bending down. Grasping, I waited, as a last thrust, the grasping of those hands upon me, and knew that it meant death.

Meanwhile, words came, words mumbled in a whisper near me, building a slow meaning: "No—insufficient," and again, "No, I say—wait!"

And then followed vacancy.

I have always believed that the poison used was a solution of cannabis indica combined with some other drug. Certainly the dream-haunted stupor points to an intensified form of hashish. But that I was saved at all—and, indeed, no one could have been nearer death—was due simply to my having left the glass half-finished. Some hours later I found myself staring into the blackened fireplace, with the confused sense of having been awakened, but I was dizzy, exhausted, trembling in every muscle. The lights were still burning, though one felt the approach of dawn. Glancing at my watch, I saw that the hour was half past five.

Then slowly, like separate pools of water joined together by a returning tide, a sequence of thought began to re-establish itself—crumbling embers, pleasant reveries, an intolerable fear, impossible dreams. I looked apprehensively at the chair near me, and saw it was vacant—at the little table on my right, and noticed a piece of white paper. It was this that gave me the final cue. Like a released spring, the separate details locked together; the glass of wine, numbness of limbs, realization of the poison. Eleanor!

In the blank recognition of what she had attempted, I felt no particular thankfulness that the attempt had failed. The future stretched out before me indifferent. Anger, desire to punish, even interest as to what her motives had been, were alike absent. They were all broken victuals of an abandoned table. What mattered now, inasmuch as I continued to live, was to drag myself to my room, take a stimulant, and wait until the hour for returning to town.

CHAPTER XVII

RISING with great effort, I staggered toward the stairway, drunkenly, and remained semiconscious, supporting myself by the banister at the lower step. It seemed impossible that I could ever climb the stairs with knees like putty and a heart action pounding at the least exertion.

Then I became aware of a sound of footsteps and movement above, people hurrying here and there, and I wondered vaguely why they should be up at this hour. A footfall sounded on the landing, and, looking up, I could see Anne Roderick's trained nurse staring down at me.

"Dr. Ames," she cried. "We thought you hadn't returned last night. I went to your room and found it empty. We've been trying to telephone to your town apartment. I'm glad you're here." Then seeing my evident state of collapse she exclaimed. "But what's the matter?"

"I'm not well," I answered thickly, "but that will pass. Do you mind giving me a hand?" And, when she had come down: "What's wrong? Why have you needed me?"

She peered curiously at my face, which, I suppose, was the color of chalk.

"What's wrong?" I repeated.

She hesitated a moment, and then, with a frightened look, "Anne Roderick is dead."

"Dead?" I exclaimed, aghast. "Dead?"

"In the night, some time," she continued. "I don't know when. I woke to find her uncovered, staring at the window. She didn't answer, and I went over to her, but she was dead."

"The window?" I whispered, thinking with an effort of a face that had once stared through mine.

"Yes—I suppose it was a sudden attack. But what's important is for someone to take charge of Miss Eleanor. She's half-distracted. We can't get her from Anne's room. Listen."

Through the twilight of the house, cold in the gray of dawn, came the thin broken sound of a woman weeping. Her hypocrisy, I thought bitterly.

"You should call Mr. Ballion."

"She won't let us—she says she won't see him."

Slowly I stumbled upward, gasping with the effort. Was this also a continued dream, a place of phantoms? The vagueness of the surroundings, my own dazed condition, all seemed part and parcel of drugged sleep.

I remember, supported by the nurse, groping with my hand along the wall of an interminable corridor. I remember standing above a couch on which lay a dead form; but at the side, half-clothed her face pressed to the lifeless hand, her dark hair covering her shoulders, knelt Eleanor. I spoke to her again and again before she heard.

Then, lifting her face stained and distorted, she cried to me: "I kept her here. I killed her when she would have been saved. I let her die at Greyhouse for my own evil will. My sin! My sin!"

There was nothing I could say or do. Indeed, shaken as I was and hardly able to stand, I felt whatever strength I had ebbing.

"Tell Hasta to go in Miss Eleanor's machine for Dr. Melroy, who takes my cases," I said to the nurse. "I'm afraid I'm out of it."

"We can't find Hasta," she returned, lowering her voice. "He was here last night, but he seems to have gone."

But I felt too ill even for interest in this statement. "Well, telephone Melroy to come as soon as he can, and tell him about her condition and," I added, "mine."

She stared. "What shall I tell him, Doctor, about yours?"

entrance. She glanced at him with sharp dismay. His face was beaming and slightly flushed, and he seemed to be excited.

"Hello, Wanda. The big boss kept me late to go over some stuff with him personally. He said to take dinner at the Alcatraz Club, and then he'd be free. Come on, I'm hungry."

She heard his eager intake of breath.

"See here, come home with me! Motherll be glad to have you."

"Phil, I couldn't."

"You'll have to meet her some time. And McIntosh!" he added with a little laugh.

But Philip Bean, for the first time in his life, was hopelessly drunk with emotion. He had held her in his arms and kissed her, and nothing else really mattered. A reckless ring was in his words:

"I don't care where you were. I love you. I want you to marry me."

"I love you," he repeated wildly, "Wanda, I want you to marry me."

"Oh!" she gasped again.

He kissed her, and then she started to cry, and the tears seemed to be in her

The Door of Death

(Continued from Page Fifteen)

thirty-two. Comparing him with myself, even vanity had to admit that Eleanor had been mercifully blind.

I felt, of course, a certain misgiving—and who under the circumstances would not?—that his charms, combined with the peculiar atmosphere of Greyhouse, might affect her attitude toward me; but on this point she reassured me herself that very evening. I had telephoned to ask about her interview with Ballion.

"Don't think it strange," she said, "that I accepted the invitation. I couldn't have refused. It was such a relief to find him generous and kind, instead of angry. His references to you and our future really touched me. He was superb. Besides, as he said, I would have to go to Greyhouse anyway about the inventory. You don't mind?"

"No . . . but I'm afraid . . ."

"Of what?"

"He's very attractive."

I could hear her frank laugh. "Are you beginning to worry so soon? Please don't! There's not the least danger." And she added a few other things that are hardly necessary to repeat; but, as the saying is, I slept on them very happily, impatient for tomorrow.

The morning dragged by. It happened that at half past eleven, having finished with the hospital routine, I chanced to be passing the Municipal Building, and remembered that Norse had not heard as yet of my good fortune. And so, telling the chauffeur to wait outside, I went up to his office.

He received me more cordially than ever, and, impassive as he was, seemed in the highest good humor. As I unfolded my news, he gave me enthusiastic "Bravo!" He shook both my hands. "At least, that much good has come out of Greyhouse!"

"So," I returned, "you don't think Eleanor guilty any longer!"

"My dear man, I never did. She's one of the finest girls I've ever known."

"It's a pity," said I, "that you aren't invited as a fourth at our luncheon today in Greyhouse—"

"What!"

"Yes, that's really the best part of it. Carl has been wonderfully decent, and has asked Eleanor and me—"

I stopped, amazed at the change in him. He had become suddenly intent, his lips pressed together, his eyes blazing.

"Were you," he spoke with an effort, "were you going to take Miss Graham with you?"

"No; you see, there was to be an inventory this afternoon of various objects in the house, and she went out this morning with Carl—"

"Alone?"

"Why, yes, if—"

"When?" he cried.

"I'm not sure. Perhaps several hours ago." He had let his hands drop to his sides.

"Can't you tell me," I began, "what's wrong?"

He raised his head sharply. "Why, yes, I'll tell you. It concerns the life of Eleanor Graham—and I'm going to be fourth at that luncheon, if we're not too late."

CHAPTER XX

AS NORSE spoke, he slammed open a drawer and tossed an automatic into his pocket. With another gesture, he caught up his hat and pushed me before him to the door.

"Hurry, man—hurry!"

Infected by his excitement, I sprang on in front of him, and could hear him call back orders to someone as he followed me down the stairs.

"Your car," he shouted, and, even before we had leaped in, "make better than your best speed," he said to the man; "break every rule. I'm responsible. Greyhouse, of course."

As the car shot from the curb I had a glimpse of police officers running down the steps of the building, and, before we had taken the first turn, I could hear the horns of several machines behind us.

Norse sat forward in his seat, his face like stone. Again and again I attempted a question above the almost constant shriek of our motor-horn, but he shook his head. And, indeed, it was hardly the time for conversation—around corners, past angry policemen, through traffic-crowded streets—that we escaped death that day still remains a mystery, that we did not kill someone else is an even greater miracle. Certainly our chauffeur proved himself.

Out we flashed at last on the lower reaches of the highway that led up to the plateau. And there was nothing in front.

"Let's see what you can do," he called, as if we were at the start of our race; "every ounce in her, every drop of speed!" And the car answered with a bound forward.

On—up—the hill melted before us. There leaped into view in the near distance the trees and walls of Greyhouse. Then as we neared the gates, "Now slow—slow down to normal." And, for the first time he looked back. "We've outdriven them," he said, "but we can't wait; we must take our chance."

A man suddenly emerged from the hedge by the roadside. It was Roose.

"Watch this point," said Norse to him, "then follow with the rest, and I heard him mutter something about orders he had failed to give. We were already on the driveway. Once again I essayed a question.

"You'll know soon enough," he returned, and to the man: "Here, reach over your gun. Now," he said, handing it to me, "you may have to use it, but use it first." And, as we came broadside to the doorway, I saw that he had drawn his own.

Thus for an instant, tense, cold with anxiety as to the reason for which I had but a confused notion, we stood facing the door. Norse's hand was on the bell. Somewhere in the house I could hear its far-off summons, and then footsteps inside.

The door swung back, revealing the hall apparently empty; but whoever had opened it did not immediately appear. I was on the point of entering, when Norse pushed in front. We were hardly across the threshold when, at one and the same instant, the door slammed shut and a figure leaped at us—to be stopped, nailed rather, on the point of Norse's automatic.

It was Hasta—smooth-shaven, swarthy, lithe—Hasta, reinstated as the embodied shadow of Greyhouse, unaccountably appearing as if from nowhere, snake-like and deadly. I gazed at him, thunderstruck.

But there was in this moment, at least, one apparent change—his assurance had vanished. The flame of what he intended faded in his eyes and left them staring. His upper teeth showed. It was the face of a bewildered devil.

"Good!" said Norse coldly, "we meet again. It's hands up, I fancy."

With a slow, numb movement the man obeyed.

"I hope," continued the other, in a singularly dry voice, "that you'll be careful now—that you won't grow absent-minded and forget who I am." And, with a sudden lash of tone: "Speak out! Where are your master and Miss Graham?"

"Upstairs," mumbled Hasta.

Reaching up, though without shifting his glance, Norse disentangled a strap from the butler's fingers that controlled a small, leather-covered knob, and immediately afterward removed a revolver from the man's pocket. Both of these he tossed aside.

"Now, step in front of us and show the way, and keep those hands up!"

The fellow moved, apparently stupefied; but, at the very moment of passing in front, I saw his eyes shift; his hand fell in a sharp, lightning blow to Norse's wrist, the automatic crashed to the floor, and he sprang toward the library.

It was incredible daring, vain as it was reckless. I fired. The shot roared in the silence of the hall, and Hasta reeled, stretching out both his hands. Then he crumpled down with a long, rasping cry. Before we reached him, a stream of blood, like an ugly ribbon, had begun to wind from his mouth.

Norse pushed him aside with his foot. "That took nerve," he said, "but, at least, he showed us the way. No, leave him—we haven't time." He put his hand to the knob. "And keep alert now; we've got worse than that ahead."

He opened the first door and bent his head, listening, then opened the second; but, upon entering, a glance sufficed to show that the room was empty. And, for the first time since leaving his office, the energy that had seemed to burn white in him appeared to fail. It was, however, despair that I saw, rather than surprise, in the blank look he cast about him.

"They're upstairs after all," I ventured, breathless. And, as he began to pace back and forth: "In heaven's name, let's do something—we can't stop here. But perhaps the danger's over, now that Hasta—"

He seemed to pay no attention, but at last: "They're not upstairs. Listen: from the very first, I've believed in a hidden space connected with this room. It must exist. No other idea is tenable; nothing else explains the facts. But I don't know where it is. I've searched below and here, I've taken measurements—useless. I'm beaten." He clenched his hands. "But, in spite of that, there is a secret room, and, unless we find it—"

He uttered a subdued exclamation as he looked down with a new intentness, and, upon joining him, its cause was immediately apparent. At our feet lay the carved face of the Medusa, but what I saw was new. The slab had sunk to about an inch below the level, and the end of a cloak, obviously dropped by chance, projected down beneath it and the next flagstone.

It was a cloak I remembered. Eleanor wore it at our last meeting.

Norse pressed with his foot, and the stone yielded, sinking another couple of inches. Stooping over, his fingers on the carving, he pushed feverishly, here and there. Almost at once the block slipped to one side beneath the floor and disclosed a well, pierced in the corner foundation of the house itself and lined with a steel ladder—a black tube. But, as we stood looking down, I caught in its depths what seemed a glimmer of light. There rose a smell of earth from the darkness, but not a sound, no whisper to break the silence.

Our glances met, reflecting the same dread. "If we're not too late," muttered Norse, one foot on the ladder—"that's the question. And I'm afraid—"

CHAPTER XXI

WE FOLLOWED the length of the tunnel. It was impossible to hear Norse, whose shoes were padded; as for me, I walked as quietly as possible. The light, radiating from the underground chamber beyond, increased. But, all at once, I became aware of a vision, increasing likewise in distinctness, though at first so improbable that I did not grasp its meaning. The effect was that of an object seen through the wrong end of a telescope, at first in an unreal remoteness, but becoming definite on nearer approach.

And, in this way, as it were, horror grew on me, took form, confirmed itself as actual. And, at last, I realized what it was I saw. But the sight resembled something out of the far past, as if one looked in a magic crystal capable of evoking it—vivid as life, but with a visionary unreality.

Beyond the threshold I remained, staring at what centered the gaze like an actual Medusa. From Norse, who had come behind, I heard a sibilant intake of the breath.

Before us, at the other end of the room, stood Eleanor. But there was no movement or life in her attitude. A form in chiaroscuro it seemed—the blackness of her gown against skin, colorless as marble; her hair in serpent-coils upon neck and brow, shading the sightless face, half-bowed, that yet seemed to gaze at us in hopeless submission. If fear, if agony that has brought peace at last are ever beautiful, they were beautiful here, but with a dreadful fascination.

Then I realized that she was not standing at all, that she was hanging, her arms

twisted behind her, the body crossed by cords at first invisible against her dress, but holding the limbs, which sagged forward. And from behind her rose the mass of a black post.

All this was perceived, of course, in a moment's time. That central form in its tragic significance momentarily shut out every other object; but almost at once I was conscious of another person, whose back was turned toward us, sitting on a low bench, apparently absorbed in contemplation of the woman; and, even as I was about to spring forward, a voice strangely familiar drawled through the silence:

"Have you got him, Hasta? Upstairs, is he? Well, fetch him down. But look how beautiful she is. Fatal beauty, eh? I loved her, Hasta."

At that, rising and straightening himself to his full height, he turned leisurely and there stood before us forming part of the incredible nightmare—Carl Ballion.

It would be vain to describe the sensation of that moment, or rather vortex of sensations. From where he stood, his body concealed that of Eleanor, so that he seemed to have risen up in place of her. And the image of him there remains forever stamped on my mind, detached as a portrait—tall, poised, graceful, the smile still on his lips, but in his eyes an alert comprehension.

The servant had shown amazement and dismay at what had fallen on him like a bolt—not so his master. No twitch of muscle, no change of face betrayed the least surprise or other feeling. He stood at ease, he smiled still; it was only in his gaze that one could read how clearly he understood.

There was an interval of that kind of silence that precedes the crack of a rifle when a marksman aims at a target; but when Ballion spoke at last, it was in the same leisurely drawl.

"So! Capt. Norse comes to lunch at Greyhouse! I wasn't prepared for him. I didn't know . . . But it's quite fit and proper. Welcome, by all means. I trust you'll like the menu."

His voice resembled the insufferable purr of a beast before it rises to a snarl. "And the doctor, my accomplished friend, who, after sneaking and finessing behind my back and blundering about, thought he outwitted me! And the lady who thought she could play fast and loose with me, and has learned better. Welcome, everyone!"

Norse's voice, clear and metallic, cut in. "Fine talk! But you're hardly in a position to indulge your wit. Hands up! Hasta has found out what trifling means."

"Why, you fool!" Ballion stared, astonished. "I'll wager he died game. And do you expect to impose on me with your stupid stratagem? Do you think I'll be your puppet, Jack—I, Carl Ballion?"

If ever pride of race, pride of name, pride of self, flared up in a single man, it was now. He laughed out: "You forget I am master here. You forget my breed. You come to hunt me, you jackals"—his voice leaped to a roar—"well, then, look to yourselves, for the hunt is on!"

What happened came quicker even than thought. I remember the crash of Norse's automatic, intolerably loud in that close place; but Ballion had leaped aside. I remember him like a crouching shadow against the wall—one glimpse of Eleanor's motionless form. All this intermingled, as if simultaneous.

And then blackness, blind, impenetrable, a surrounding mass.

Thought, as I say, lagged behind, and only after a second I realized what had happened—that he had reached the control of the lights and had turned them off.

A voice jeered somewhere in the darkness, "And every man for himself, as the distinguished doctor knows."

But at the same moment came another pandemonium of sound from Norse's gun—and an answering laugh.

We were two to one, but that one had all the advantage. It was we who were on the defense, who were in danger, not Ballion. His lightness of tread made him an indefinite part of the surrounding blackness. He knew every foot of the place. He knew where we stood, and each blind step revealed our movements.

I had a vague consciousness that the room was provided with various stands holding glass cases, from which, when the lights were on, had come a scattered glittering—evidently Francis Ballion's gems—but one could not move without groping among these, whereas he, on the other hand, was sure of himself.

Our single comfort lay in the fact that we were armed, but it was short-lived. Of a sudden, a ray of light from Norse's pocket-lamp reached out, stabbing here and there, and almost at once an ear-splitting shot ripped the silence. I heard the tinkle of metal on stone, and a whispered oath from Norse. "Good! it was only my left hand!"

Another deafening report. A blow on my shoulder. I found myself against the wall, darkness, as it were, strangling me. I believe I must have cried out. An arm from near by half lifted me, and Norse's voice in my ear, "Back, back—the tunnel! We can't match him here." And, guiding me a pace or two, even as another shot rang out, harmless this time, I found myself in what was, no doubt, the passage.

"Flatten yourself against the wall," hissed Norse; "the devil can't see, at least."

No, but he could hear. Another racket of sound; a puff of air at my face showed how close the bullet passed.

There followed dead quiet, the quiet of an ambush, of coiled expectancy, where each grain of time falls as if distilled in a choked hourglass. I wondered why he had ceased firing, as long as he knew where we were; but then realized that he was doubtless saving his ammunition for a certain shot—that, or reloading.

My shoulder throbbed like an inflamed pulse and I felt a sensation of moisture along the side, but I knew that the bullet had not disabled me, had inflicted only a flesh wound. Would nothing break this pause, no discharge of the energy that seemed accumulating, spark by spark?

CHAPTER XXII

AND then a sound came. Shrill, inarticulate, a scream filled the vault with a soulless quaver, rose three times, loud, inhuman, and was still. It was an unbearable sound, the sort that unhinges thought, that makes one cringe from its repetition. It resembled a call of despairing madness that summons death to strike and have done.

Then I believe something gave way in me. I cried out "Eleanor!" I tore myself from Norse's grasp and leaped headlong into the

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scene. The stones were an interweaving of emeralds supporting a magnificent ruby.

"To be worn on the thumb," said Norse. "a man's thumb, as was the practice at one time. What adds to its interest, however, is that it belonged to Francis Ballion's collection."

"What do you mean?"

"Why, just that. I traced the former sale of it to him. And I had my eyes open for possible reappearance on the market of some

than, taking out his watch. "It's too late for your dinner at Greyhouse. "I'm sorry. Better dine with me, and you can run out afterward."

I even stayed on after dinner, and we talked of Alix Starforth and Francis Ballion. We were absorbed, however, principally by the mystery of Celia's death unsolved, and I felt a breath of dread as to where the scent might lead. Norse had proved

In expanding fancy I saw my days spent at Greyhouse—in part. I devised Paradise for Barbara and myself. I saw her mind cleansed of the poison used was a solution of cannabis indica contained, I always believed that the poison

And then followed vacancy.

I have always believed that the doctor, I walked, as a last throb, the grotesque of those hands upon me, and knew that beneath the form that was bending down, it meant death.

Meanwhile, words came, words mumbled in a whisper near me, building a slow meaning: "No—insufficient," and again, "No, I say—wait!"

I looked over at the kneeling figure of Eleanor, her bare arms extended on the bed. "Tell him an overdose of morphine," I answered. And disregarding the nurse's shocked expression: "About Hasta, call up Capt. Norse at the police offices. He'll want to know."

I managed to get to my room, but, all the while, there rang in my ears a cry: "At Greyhouse—my sin! My sin!"

And then I fainted, and it was hours before I regained consciousness. When I did, I found Norse and Carl Ballion standing beside me.

"It's no good," said Norse, eyeing me coolly after my attempted explanation; "morphine won't do. Dr. Melroy knows you don't take it. Carl here knows it, and I know it. Now tell us what did occur."

I remained silent.

"It might make it easier for you," observed Ballion, "if I tell you that Hasta was no doubt an infinite scoundrel. I believe he was an accomplice of my brother's, I believe he thought you suspected him. Remember that encounter you had with him late one night? I didn't like his face when he told me of it. At all events, he's disappeared, and taken some jewels of Eleanor's with him."

I looked at Norse.

"It's a fact," he agreed. "And I think Carl's probably right in his theory as to why Hasta should attempt to kill you. He's distinctly a bad customer."

"But, if—" I began, and then seeing the detective's eyes narrow, stopped short. "But I haven't admitted any attempt," I concluded.

Ballion laughed outright. "Well, then, perhaps this will make confession easier—we've examined the wine in your glass, as well as the sandwiches."

"And you found?" I exclaimed.

"Nothing," returned Norse, "nothing at all. Perfectly good wine, and slightly stale sandwiches. So you thought you had been poisoned with them?" he continued, smiling "Obviously not."

I could hardly credit my senses. Obviously, I had been poisoned with the wine; I thought I could even name the drug and yet here they reported that the Barbara was innocent.

"Who made the examination?" I asked.

"Melroy."

"Why, then, you see," I retorted stubbornly, "that I was telling the truth about the morphine. Don't let's talk any more about it."

Norse smiled. "Very well. I think we've learned what we wanted, in any case. I mean regarding your opinion about the wine. We'll agree that you believed you took a dose of morphine in it, but were mistaken."

The above conversation took place at Greyhouse on the afternoon following Anne Roderick's death. I had been wretchedly ill all morning, and was now stretched on the couch in my room, though enough restored to be dressed. Outside the car waited for me, and I resolved it should be my last drive along that road.

Melroy's report had affirmed categorically that there was no reason to suspect any other cause for Anne Roderick's death than heart disease. And he was presumably right. But I could not help remembering the position in which the nurse had found her; nor could I forget the face I had once imagined to have seen lifting itself up outside my window. And for the sake of air last night that window had been open. But, when Ballion had left us and I mentioned the coincidence to Norse, he shrugged his shoulders.

"The trouble is that there's a concrete walk along that side of the house, and it's impossible to discover footprints. I admit that an exceedingly active man could gain the window ledge. But for what purpose? What possible animus could anyone have against the poor girl?"

I did not know, and told him so.

As a matter of fact, Anne Roderick's death, Hasta's disappearance, what Norse believed, were all indifferent as compared with a single issue: Eleanor.

Ballion had said casually, but with a black look, that she had refused to see him. Why? What change did this betoken? I remembered her self-anathema. To me, it was that self only that mattered. And in this I believed myself to have the advantage of Ballion. I somehow divined that Greyhouse was the link between them, that her spirit of contrition militated against him.

For once Norse's shrewdness was at fault. "If you're thinking about that vine," he remarked, "it might occur to you that nothing would be easier than for Hasta, let's say, to replace the amount left in your glass with fresh wine after you had lost consciousness. I'm not in the least disturbed by Melroy's analysis."

His suggestion explained the problem so easily that I was ashamed not to have thought of it.

"You believe Hasta was responsible, then?" I asked.

He nodded emphatically. "I do."

"In that case, do you think you will be able to lay hands on him?"

"Eventually."

"There's one thing that puzzles me," I declared, "and that is, why, if he wanted to kill me, did he not do so when I was drugged? Why did he take a chance?"

"For the simple reason," answered Norse, "that he believed you had sufficient—and indeed, you very nearly had. And now, since you've taken a more reasonable attitude, tell me what drug you think was used. It might help investigation."

And as there was no longer a reason for silence, I surrendered and told him, "Some derivative of hashish."

"Bo!" he returned. "But why on earth couldn't you have told me that before?" Then, when I flushed and said nothing, he smiled, adding illogically, "The only good thing in all this is that it will get you and Miss Graham away from here."

"Do you think she will leave?" I objected.

He paused a moment, and it struck me that he seemed more keenly aware of the situation than I imagined. Then he answered thoughtfully. "Yes, I believe she will."

CHAPTER XVIII

ELEANOR left Greyhouse that same day, after arranging for Anne's burial from one of the city chapels. It appeared that she had gone back to her former school, an Anglican convent on the outskirts of town.

But I should have remained ignorant of the fact had it not been for Carl Ballion, whom I met one night in the reading-room of the club. I stumbled on him by accident, ensconced in a chair, a paper on his knees. It was an opportunity to ask about Eleanor, which I did.

"She's at St. Clare's," he answered casually, "cut off from the world, the flesh, and the devil—in other words, me, if you please. I thought she had outgrown that kind of romanticism—not that I take it seriously. You might," he added, with a faint smile, "see whether you could tempt her out of her cotton-wool."

And, evincing no further desire for talk, he resumed his smoking.

St. Clare's. I found out where the place was, and drove past it once, with I know not what confused purpose. It was surrounded with high brick walls. I could see the roof of a chapel, other roofs. The streets about it were deserted, the place itself blank and silent.

These few days were, I think, among the hardest, I have ever spent. I had been living at white heat in an atmosphere of new thoughts and feeling, and must now adapt myself again to the treadmill. The color, the zest, the lilt of life had faded into sober drab.

Had it not been for Eleanor, I should no doubt gradually have fallen into step with life; it was the thought of her that made this impossible. Everywhere I was accompanied by the sense of a lost glamour, a lost magnificence, and felt beggared for want of it. The echo of faster heart-beats disturbed the trudge of things.

I was in this comfortless between stage when, about four days after the events just narrated, there arrived unexpectedly a letter. And from her.

It was merely a note that she would like to meet me at a certain place for tea and to discuss various matters. What they were she failed to vouchsafe, the writing being in a crisp, direct style hardly more expansive than a telegram. But to hear from her at all, not to mention the promise of seeing her, was an unhoped-for grace.

It seemed to me, as we met at the door of the tea room, that she had grown strangely pale in comparison with my memory of her at Greyhouse; although, perhaps, the effect was one of contrast with the dress and hat she wore, of complete mourning. Her eyes bore witness, I thought, to the shadows of long nights, but they were deeper, clearer. It was as if years, and not days, had passed.

Concerned at her pallor, I remembered asking whether she were well.

"Not quite," she said, and then, noting my change of expression, "Oh, I don't mean that way. I think you know what I mean."

Although for a while we continued silent or exchanged those surface words that are no more than silence, it was not for lack of understanding. Even the superficial took on unintended meaning in tone or glance.

We had shared an experience hard for both of us to speak of, but that drew us together. It was she, at length, who made a beginning.

"You wonder, perhaps, why I asked you to meet me. It was because of a letter from Capt. Norse."

I repeated the name in an exclamation. What could Norse be getting at!

"I had been confused about what happened that last night," she went on; "above all, I couldn't understand why you had taken that drug. I knew you were not that kind. Alone, at St. Clare's, it haunted me. I imagined it was because . . . . I feared that another time . . . And, heaven knows, I had enough to be sorry for. I wrote Capt. Norse about it; he told me what actually happened. And now I want to know why you made it appear that you were to blame."

Before her clear gaze my own fell. Stricken, ashamed, I could only look down. My lips formed, at last, the single word: "Forgive!"

"Oh," she said, in a low voice, "I was remembering that, although you thought that of me—and I had given you enough cause—still you preferred to shield me, even at the price, if necessary, of your own good name."

Her praise, in view of the temptation I had passed through with regard to Carl, shamed me even more. "Please!" I cried.

"And I was remembering something else," she continued. "I was remembering a certain night when, mad as I was, faithless as I was to every memory in the fever of that place, except for you I should have dishonored myself utterly. And I recall how I repaid you day by day with every slight I could think of—coldness, contempt—the poor mimic of Carl Ballion."

"Please!" I said again.

"You're right," she returned, "we shouldn't dwell on all that. It's over with, and the price is paid. But there's one thing," she added, "that I want you to know. You asked me once if I loved Carl Ballion, and whatever I answered doesn't matter now. I do not love him. But, oh," and she spoke almost in a whisper, her lips trembling, "I fear him! When I think that in May . . . It wasn't easy to give up caring for him; but I understand what he is because of what I had become. And I'm afraid," she repeated.

"Does he know?" I asked.

She nodded, and I was conscious of a certain dread in her eyes. "I told him yesterday that it was the end between us. He acted as you would imagine. He used all his will, his power—we were in the reception-room of the convent—you know what eloquence he has—I could almost feel myself again in the hall at Greyhouse—that strange, forbidding air. Somehow, I had the strength. In the end he was all regret, very gentle and considerate. Not for one minute did he lose control of himself. And, all the while, I knew that his thought weighed, measured, beat as steadily as his pulse. And all the while I was afraid."

I could easily imagine that scene, the two wills locked in passionate struggle within the bare convent room, and, as she evidently believed, I felt also that it had not meant the end.

"I hope you won't think," she continued, "that this is simply a reaction, after what happened the other night. I shall never love

Carl Ballion. And I wanted you to know."

"Why?" I whispered.

"Because," she said, "if you imagined me capable of what you suspected the other night, you may have believed that I was concerned"—she seemed to force the words from her—"in Celia's death. I read between the lines of Norse's letter. I could see how you thought of me, and I could not blame you—but, oh, think of me as insensible, cruel, degraded, only believe me innocent of that."

"But, Eleanor," I exclaimed desperately, "you must realize that even then I didn't care."

'And it was because you did not," she answered, "or rather because you cared for me that I wanted you to know."

Dazed by the notion that any thought of mine should have importance with her, I could merely express what come uppermost, bitter in its inadequacy, "Care for you! If, being as I am, I only had the right to care!"

And then her words, incredible beyond dreams, that remain for me the summit of the years: "You only have that right."

It would be superfluous, as it is impossible, to describe the glory, the humility, the transcendence of that hour and the hours that followed when I had left her at the doorway of St. Clare's. Fancy alone, untrammeled by words, can give a reflection of them.

I had been lifted, as it were, from the void to the gates of Paradise. Gone apathy, lack of purpose, inertness of mind—gone as well that craving for the past that, compared with this, I saw now as it was, sensual, corrupt and dishonored—gone in the radiance of this flame. The world was transfigured by a miracle, became, even in its autumn bareness, royal, pulsing with music and promise.

Men in that state are proverbially ungrateful. I chafed now at the thought of the months of retirement she had imposed on herself. We were to meet occasionally, but not until spring—Easter, she said—would she take part in usual social life. Then, in the autumn, perhaps . . .

But we were to meet in two days, on Thursday. I resolved to forget the remoter future and confine my impatience to what was near at hand.

Before parting, Eleanor had referred to a subject that naturally preoccupied us both: "It seems to me Carl has the right to know how matters are. In fact, it would be inexcusable not to be open with him. And, if you don't mind, hard as it is, I'm going to write him a letter."

There was, doubtless, a very human element of triumph, not unmingled with concern, in my notion as to how he would receive that letter.

Under any circumstances, it is hard enough to congratulate a successful rival; but, when the latter has been an acquaintance, a guest, and his infringed unscrupulous rights usually respected, congratulations might even savor of weakness. I confess that my attitude toward Carl Ballion was greatly altered by the splendid way in which he accepted his ill fortune. Because, naturally, of weakness in his case there could be no question.

I was sitting alone in the club an evening or so later. There was a mirror in front of me, and, glancing up from the paper I was reading, it was with a start that I saw his reflection as he stood leaning over me. He had apparently been reading over my shoulder, and our looks met in the glass; whereupon, he smiled, and, coming around, seated himself near by. I was not a little embarrassed to find myself alone with him.

CHAPTER XIX

"I HAD a letter this morning from Eleanor," he said abruptly. Then he paused, and every nerve of mine sprang alert.

"She told me," he went on, "that she cared for you, and did it with the same frankness that she used recently in dismissing me. I have no comments to make, except that I wish you both happiness, and I have already expressed this to her."

I answered with the conventional thanks.

"Not at all," he took me up. "I like you and I'm devoted to her. No doubt she has chosen wisely. I'm under the shadow of what happened at Greyhouse, and possibly would have made her unhappy. One accepts facts as they are."

He lit a cigarette, and continued: "I rather admire you for outwitting me—though, in the case of so rare a girl as Eleanor, the expression sounds more flippant than I mean. I don't blame you in the least, because I should have done the same. It's a matter of every man for himself, my dear Ames, and devil take the hindmost. So there's my hand on it."

He leaned forward and shook my hand warmly. There was in all this an undercurrent of chagrin, indeed, of sadness, that in the case of so proud a man as Ballion touched me. At a stroke, his generosity atoned for the slights and contempt I had suffered from him, and I pitied, respected and rather liked him.

"There are times and tides," he said, "that exemplify the adage that it never rains but it pours. Everything had gone well with me, too well. I had always been lucky. Then in two weeks occur the tragedy of Celia and Francis, and, hardest of all, this loss of Eleanor. Blind luck! Now heads, now tails. Let's hope," and his smile invited sympathy, "that my next throw will be more fortunate."

"I'm sure of it," I replied, not to be outdone in good feeling.

"Are you?" he queried. Then laughing, "Well, my very next scheme depends on you, and I hope you'll indulge me. In a few words, it's this; the process of dividing the Graham and Ballion estates includes an inventory scheduled at Greyhouse for tomorrow afternoon, which Eleanor has to attend. Our attorney and the appraisers will arrive at two. Now, in spite of what painful associations the place has for Eleanor, it occurred to me that, as long as she must be there in any case, she might at least do me the kindness of coming in time for lunch. She owes me a little reparation, and so do you. I told her that yesterday when I called with my rueful good wishes, and she consented, providing you could arrange it. Don't tell me you can't!"

"I'll be delighted," I answered, charmed equally by his manner and by the prospect of an earlier glimpse of Eleanor. "Of course."

"Good!" he exclaimed. "Half past twelve. Not a moment later. I apologize in advance for the service. Since that blackguard, Hasta, disappeared, I've taken on a very indifferent butler. But I promise one thing."

"What's that?" I asked.

"Champagne—not Barbara this time." He shook his head gravely. "That was a close shave for you; but, at least, it explained matters. I was utterly mistaken in the man. Well, tomorrow, then. Au revoir."

With another cordial grasp of the hand, he strolled away, nodding to several acquaintances at the door.

He remained very much in my mind that evening. I regretted misjudging him, and indeed, were it not that lovers are shameless, I would have reproached myself. He had shown a magnanimity in keeping with his talents and reputation, a breadth of nature that, I realized, far exceeded mine.

I understood his popularity, his host of friends, and a success phenomenal at his age, which, as I recall, was then barely

(Continued on Page Nineteen)

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entrance. She glanced at him with sharp dismay. His face was beaming and slightly flushed, and he seemed to be excited.

"Hello, Wanda. The big boss kept me late to go over some stuff with him personally. He said to take dinner at the firm's expense. What do you think? I made a hit with his lordship!"

"Gee, that's swell," she tried to say with enthusiasm.

She caught the dark guy's interested glance and saw that he was smiling. Walking from Philip's table to his was like stepping from light into darkness. Never in her life had she envied one so as she did that saphead's freedom of mind and action. "Integer vitae scelerisque purus" were words forever out of Wanda's ken, but no scholarly reader of Horace could have appreciated their meaning more.

As she set down the coffee he said to her, "Does your boy friend know you did a stretch in 'stir'?"

"Why?" she asked sharply, and the other smilingly shrugged his shoulders.

"Well, what do you say about this easy set-up?"

"Nothing doing."

"You sure?"

"Yes, I tell you. I'm going straight."

For the first time she saw how terrible the dark guy could look when he was angry.

"Where do you get that high-hat stuff? You're a crook. You've been in 'stir'!"

"I'm not going back there, either."

"Say, listen. Suppose I tell your boss he's got a girl just out of San Quentin!"

The dark guy, noting her consternation, smiled a triumphant smile.

"And the same goes for any other boss you get around the bay. When're you through tonight? I want to see you."

"I've got a date," Wanda muttered.

"Sure you have—with me!"

When she emerged at eight thirty with Philip Beam at her side, he was waiting in a near-by doorway.

"Let's walk fast," she whispered, but they had not gone a dozen steps before the dark guy's hand touched her shoulder.

"Guess you're forgetting, baby; you've got a date with me."

She shrank against Philip.

"I can't—tonight. I got a date with Phil."

"Phil, eh? Don't pay any attention to her, Phil. Her memory's bad. Why she can't even remember where she spent Thanksgiving with Mabel!"

The young man stood amazed, glancing from the dark guy's face to Wanda's. He felt her arm tighten in his, and a frightened voice which was almost a whisper was imploring him not to leave her.

"All right, Phil," came the harsh demand. "Travel on home to mother."

"No," Wanda pleaded. "Stay with me."

Then Philip Beam surprised her. Instead of retreating before the threatening glare of the dark guy he placed himself in front of Wanda and stoutly stood his ground. Again it was a case of "integer vitae scelerisque purus"—blameless of life and free from crime—which the dark guy distinctly wasn't. When one has earned a record on the police books, he is shy about whom he meets.

"Can't you see you're not wanted?" said Philip Beam, waving his brief case. "If you keep on bothering this young lady, I'll call that policeman yonder and have you sent to jail."

The dark guy darted a look behind him.

There were uttered oaths and certain vague threats, unintelligible to Philip. But the dark guy quickly vanished. Wanda started to cry, with her head on the young man's breast. He had never before felt so close to a girl, and the feeling was like an elixir.

A fog had blown in from the sea while they were watching the picture. What the story was about Philip had scarcely a notion, but that night he would never forget. She held his hand and sat with her cheek snuggled against his shoulder. To his delight and, indeed, his surprise, he placed an arm about her.

Then they were in the street.

"I can't go home," shivered Wanda. "He followed us last night. He knows where I live. He'll be waiting in front, a night like this."

"But I'll see you safe inside the door."

"No, I'm scared—a night like this. It gives me the creeps."

She heard his eager intake of breath.

"See here, come home with me! Mother'll be glad to have you."

"Phil, I couldn't."

"You'll have to meet her some time. And McIntosh!" he added with a light little laugh.

"Why?" gasped Wanda, startled.

They had turned into Taylor street and—away from the lights of Market—the sidewalk seemed deserted. The heavy fog was all about them, two cellmates imprisoned by clinging mists, two isolated beings. In a shop entrance between two show windows they stood, facing one another.

"Because I love you!" said Philip. "Oh! But you don't know me."

"I love you," he repeated wildly. "Wanda, I want you to marry me."

"Oh!" she gasped again.

"You're the most wonderful girl in all the world."

He kissed her, and then she started to cry, and the tears seemed to be in her throat. Out of her tears came a husky voice:

"But you don't know me at all, at all. I've lied to you. I'm not a good girl. Phil, honey, I've been in prison!"

"What did you say?"

"In prison. I've been in San Quentin. For burglary—don't you see? When I saw you, they'd just let me go. On the ferry, Phil, coming from San Quentin. I'm just a crook out of prison."

But Philip Beam, for the first time in his life, was hopelessly drunk with emotion. He had held her in his arms and kissed her, and nothing else really mattered. A reckless ring was in his words:

"I don't care where you were. I love you. I want you to marry me, Wanda."

"But I'm not a good girl. I . . . lived with a man, without marrying him. He was a crook and I lived with him."

His arms relaxed their pressure, and the silence that followed was filled with hurt.

"Do you still love him?" Philip asked her.

"Still love him! Of course I don't!"

"Do you . . . love me?" His voice was breathless.

"Oh, I do, I do! I'm crazy about you, Phil!"

"Why, then, that's all I care."

He laughed with relief as he held her close and his lips were warm on hers. It was the most exalted moment she had ever known—the most joyous and also the saddest. In that moment she felt a thousand years older, a thousand years wiser, than Philip. Something dark went out of her heart and she knew that the past was broken.

"We'll get married tomorrow," he whispered.

They walked arm in arm till they came to a cheap hotel. Wanda no longer feared the dark guy, except for what he might do to Philip. On such a night, cloaked by such a fog, it was so easy to swing a blackjack. In the morning she'd collect her few belongings and go where he could not find her.

Wanda had no definite notion where she was going. But during the lunch hour the following day one of her regular patrons, a Mr. Volney, wiped his mouth on a napkin and turned in his chair. He was port steward for a steamship company.

"How'd you like a trip around the world?"

"How'd you like this soup down your neck?"

Mr. Volney grinned.

"No kidding, Wanda. The Argentinan's shy a stewardess. She jumped ship here, and I've got to fill her place. The Argentinan's a good boat; nice crowd; plenty of tips; round the world cruise; land you in New York in May. I wouldn't offer you the place if it weren't a good boat. She sails at four o'clock."

It was just as if God had smiled at her—and Philip.

"I'll take you up on that," said Wanda.

At four o'clock sharp the huge whistle crooned its deep, long song of parting. The tugs strained at their hawsers, the serpentine rippled, and the liner backed into the stream. As it glided past Alcatraz Island, gathering speed to push through the Golden Gate, Wanda, in her apron and headpiece of white, came out for a minute on deck.

She saw the ferry boats skimming the bay. Here, abreast the Argentinan's towering side, was the Cazadero, bound from Sausalito. She viewed it with shining eyes, peering right through its broad flat roof to a seat where sat a bashful youth who had cut his cheek in shaving.

She saw Sausalito crowding down to its little cove, alive with yachts and pleasure launches. Somewhere among those clustered homes were a doting mother—and McIntosh.

Poor Phil! It would be awfully rough on him, after he'd had her letter. But Wanda was a thousand years older and wiser, and the day would come when he'd thank her. In her letter she said this was just to be sure, this trip over far away oceans. When the cruise was ended they'd both of them know, and then . . . Wanda sighed as the ship, swinging wide in its channel, brought her suddenly into the wind. She had learned about men, waiting table. At first his letters would be filled with all the aching hurt of his longing. Then, more infrequent, their tone would change, and at last she'd be only a memory.

But a grateful memory and pleasant—just as he would be for her.

"God, what a world!" she murmured to the ocean breeze, growing stiffer. "I go cuckoo over one guy and it lands me up in 'stir.' I'm crazy over another, and it sends me out to sea!"

She daubed her eyes with a handkerchief.

"The saphead—the dear, darling saphead!"

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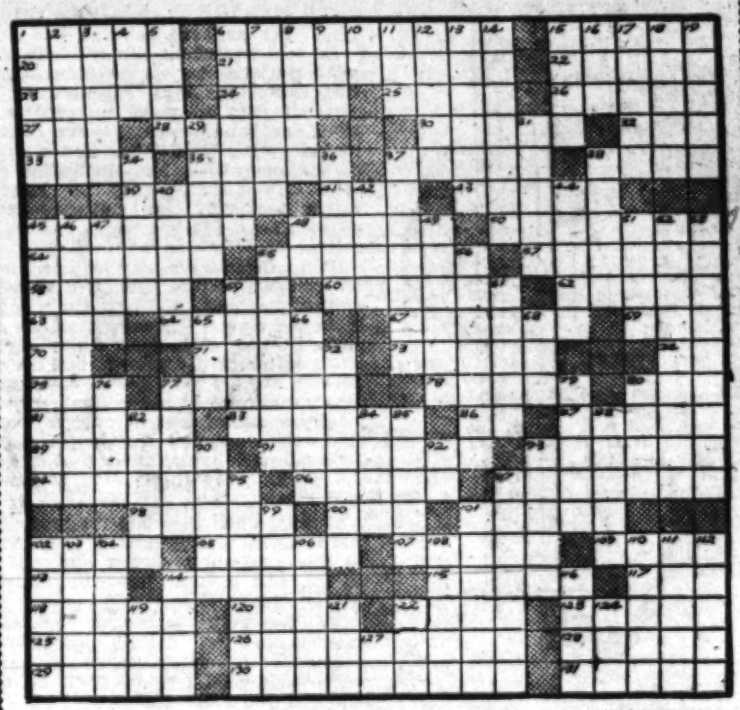
CROSSWORD PUZZLE



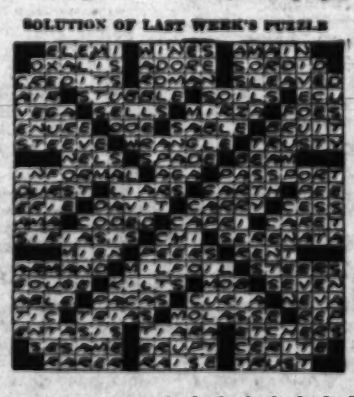
ACROSS

1—Unit of weight
6—Sea bird
15—Pertaining to an ecclesiastical dignitary
20—Make a speech
21—One who transfers property to another
22—Musical drama
23—Given points of time
24—Scratch
25—North American rail
26—Speak
27—Before
28—Crossbeam
30—More dainty
32—Conjunction
33—East Indian timber trees
35—Manifest
37—Bills
38—Potters' raw material
39—Landmarks
41—Partake of reality
43—Bristles
45—Curtail
48—Scopes
50—Hermit
54—Dogmas
55—Ocean vessel
57—Composition-coated cylinder for inking type forms
58—Tamarisk salt tree
59—Italian River
60—Helix
62—Marble
63—Coin of Rumania
64—Bucolic
67—Ides
69—Siamese coin
70—Teutonic war gods
71—Fathers
73—Spot on an insect's wing
74—Biblical name
75—Disorderly crowd
77—Fasten securely
78—Sawlike organ
80—Hawaiian food
81—Worship
83—Soft horny stubs situated behind and below the pastern joint of horses
86—Anent
87—The aggregate of the animals of a given region
89—Gateways to a Buddhist temple
91—Lines of different colors
93—A Teuton
94—Made use of
96—Nucleus of a starch grain
97—Human beings
98—Serfs
100—Antiquity
101—To analyze grammatically
102—Arabian military commander
105—Sober
107—Frighten
109—Membranous flap
113—Negative particle
114—Vegetables
115—Ascend
117—Metal fastener
118—Play
120—Young herring
122—Leave out
123—Tipped up
125—Consumer
126—Class of worms
128—Slight color
129—Considers
130—Pertaining to an assembly
131—Manage

DOWN

1—Formal statements of rules, regulations, etc
2—Australian cockatoo
3—Badgerlike musteline mammal
4—Devoured
5—Experiment
6—Moving company
7—Fruits
8—Upright piece of a step
9—Encountered
10—Above and in contact with
11—Short-napped fabric
12—To make reparation
13—Large water wheels
14—One who tows a vessel from the shore
15—To stream
16—Likely
17—Part of a flower
18—Sphere of action
19—Greasy
29—Heavy cords
31—Compound ether
34—Heap of rocky debris
36—Weeds
37—Spreading light
38—Part of an ancient Roman temple
40—Fish-eating mammal
42—Harvest
44—Fruit of certain trees
45—Bring to a standstill
46—Heretical
47—Sole
48—Near
49—Watery
51—Bone of the forearm
52—Local
53—Members of the Elian school
55—Floaters
56—Dogs trained to catch mice
59—Chief
61—Measure for liquids
65—Employ
66—The duration from a beginning to an end
68—Boat propeller
72—Fabled
76—Perforation size
77—Monetary units
79—Out of the southwest wind, personified
80—Cougar
82—Less frequent
84—Money drawer
85—Potatoes: coll
88—Russian society
90—Intelligence
92—Type measure
93—Stabs
95—Abhors
97—Connubial
99—Lampoon
101—Passerine bird
102—Terminated
103—Postponements: law
104—Wrathful
106—Small islands
108—Biblical name
110—Suppose
111—Protuberant part of a cask
112—Penetrate
114—Obstructs
116—Devours
119—Hebrew letter
121—Prussian town
122—Indian tribe
124—Small bird
127—Three-toed sloth

SOLUTION OF LAST WEEK'S PUZZLE



(Continued from Page Fifteen)

thirty-two. Comparing him with myself, even vanity had to admit that Eleanor had been mercifully blind.

I felt, of course, a certain indignation—and who under the circumstances would not?—that his charm, combined with the peculiar atmosphere of Greyhouse, might affect her attitude toward me; but on this point she reassured me herself that very evening. I

The Door of Death

but a confused notion, we stood facing the door. Nosee's hand was on the bell. Somewhere in the house I could hear its far-off summons, and then footsteps inside.

The door swung back, revealing the hall apparently empty; but whoever had opened on me, took form, confirmed itself as actual. And, at last, I realized what it was I saw. But the sight resembled something out of the far past, as if one looked in a magic crystal capable of evoking it—vivid as life, but with a visionary unreality.

It ever pride of race, pride of name, pride of self, flared up in a single man, it was now. He laughed out: "You forget I am master, here. You forget my breed. You come to hunt me, you jackals"—his voice leaped to a roar—"well, then, look to yourselves, for the hunt is on!"

"Why, has he?" Ballon stood motionless. "I'll wager he died game. And do you think to impose on me with your guns and sneer? Do you think I'll be your jumping-jack—I, Carl Ballon?"

THE SAPHEAD F

"What a World,"
Guy—It Lands Me
an

By Pau

Wanda's hatred flamed into words. Wo

AT HALF past six the outer gates are opened.

When the time came Wanda was ready, dressed in the same tailored suit, with soft blue hat to match, she had worn when first she entered. A matron took her to the prison office and there she signed her name with a hand that trembled.

"Going to be a good girl now?" asked the matron. It was as much a form, almost, as the signature.

Wanda nodded, but she did not meet the other's eyes.

"Well, good-by, Mrs. Mallow. I hope I don't ever have to see you again."

"So do I, honey." Then, because the girl was so young and serious and pretty, the matron kissed her and walked with her to the door.

In the bus which took her to San Rafael, Wanda sat very still, looking out the window away from the prison. There were things going on in a place like that that people did not know of.

It was amazing how close those prisoners were to the outside world. They knew almost as soon as the public did of the Thanksgiving riots at Folsom, the valley prison. They had news of criminal activities in Los Angeles and San Francisco. They were in constant touch with the half-world.

"Tonight—anyway by tomorrow—they'll know what I did," thought Wanda. It would come through the walls by the same mysterious grapevine that had told of Bebe's treachery and Tommy's.

Wanda's mind went back to the day when she learned the truth about her arrest and conviction for burglary. It was in the mess hall, a few weeks after she came there. Mabel Borgland, the slaver, whispered the news as she hovered over her food: "Bebe Cole tipped you off to the cops." Wanda, astounded, had asked her why. "Because she wanted your Tommy." Mabel Borgland could even tell her where the two of them were living.

It was so plausible she had to believe it. Too many inexplicable things were suddenly cleared by that statement. And corroborative information was not lacking. It came, from time to time, through the grapevine; nor was Mabel the only woman who passed her news of the couple. When Bebe and Tommy moved to Seattle, she presently heard about it. When they returned to San Francisco, she was even told their street number.

For nine months she had steeped her hatred in an atmosphere of viciousness and depravity. Hatred not of Tommy, though she could never forgive him the thing that he had done. In Wanda's heart there was room for just one hatred, and it all belonged to Bebe.

The bus drew up beside the station in San Rafael. Wanda bought a ticket and asked when the train would leave. On the platform she had a glimpse of her face in the glass of a weighing machine. She stepped before the scales and glumly stared at her pallid features.

Then she hurried across to a drug store.

"Give me a lipstick and a compact of rouge. I got to catch a train."

"These trains don't fall for rouge any more."

"Never mind getting funny," said Wanda. "I never laugh on Fridays."

"Fish give you a pain in the neck, eh?"

"Sure you do!" snapped Wanda.

Memory stabbed her with a little pain. This was like the days in Chicago, when she had a nimble comeback for every fresh young patron of Conbee's Ritz cafe. For all of them but Tommy. Tommy had been different . . . and soon she'd quit waiting table and become a crook with Tommy. Wanda sighed as she counted her change.

Wanda's career in crime had been short and she wasn't a crook at heart. All that she had done and borne was for love of Tommy Miller. It had even kept her silent when she learned how he'd betrayed her.

Before the prison board the other day, when she appeared for examination, Wanda might easily have told them of Tommy's part in the burglary. But no; there would be small satisfaction in seeing Tommy punished. It was Bebe whom Wanda hated.

She wondered if they had heard of the prison board's finding. Probably not. Sentenced for an indeterminate period, her term had just been fixed by the board at a year. With two months off for good behavior, this meant that her time was already up. But Wanda's name meant nothing that the papers should print an item. Unless the grapevine carried them the news, Bebe and Tommy should be ignorant of her freedom.

At Sausalito, Wanda changed from the electric train to the ferry. She went at once to the women's room and applied the rouge and lipstick. This was better, she told herself, looking long in the mirror. Tommy would not have so much cause to wonder why he'd ever thought her pretty.

The ferry was filled with office-bound commuters. Already the morning mists had lifted, and she could see through the Golden Gate straight out toward pagan China. San Francisco seemed to sparkle in the sunlight glancing its hills.

Wanda took a deep breath. She stole a hasty glance eastward toward that point of land where San Quentin stood, with its walls looking gray in the shadows. Mabel Borgland and Alice the Killer, little Susie Wolz, and the sullen mountain woman from Calaveras, Mira Castro, and the Chinkie girl called "Hoppy"—all were toiling now at the same worn work table where yesterday Wanda had labored. Each thinking about her absence, perhaps envying her, resentful.

One thing was clear to Wanda. She'd die before she would ever go back; she'd take her own life—do it gladly.

The air was cool and Wanda returned to the warmth of the spacious saloon. Something caught her attention, drawing her like a magnet to the seat beside it. There in its mother's arms was a baby, the first she had seen in nearly a year.

Wanda stared at the infant as one stares as a curiosity. It kicked its feet and she smiled. It began to cry and she instantly frowned in sympathy. When the mother rose and carried it toward the women's room, her eyes met the girl's with a friendly little smile.

Wanda almost followed but remembered in time what she was.

Across the aisle sat a young man with a brief case on his lap. His eyes were blue, of a clear dark blueness, and very earnest looking. He had cut himself in shaving, but the repair job was over-hasty. His little moustache looked neat indeed, and his ears were a size too large for his head, which was oval shaped and blond.

"Y. M. C. A. boy," Wanda told herself, "Yes, Mother's Coming, Adolph!"

He had been figuring on the back of an envelope. Now he drew out a pocketbook and frowned upon its contents. Wanda glimpsed the corner of a twenty-dollar bill.

A moment later she was smiling at him, her eyes fixed boldly on his.

The young man started, looked again, smiled, and was very embarrassed. Wanda, looking demurely down at her purse, counted the change that remained there.

She followed close behind him as the landing aprons lowered. Rush-hour boats were also arriving from Oakland and Alameda, and the arcade of the Ferry Building swarmed with commuters intent on reaching their work.

Wanda caught up with the neat young man and quietly took his arm.

"Give me twenty dollars or I'll start to scream. I'll tell the cops you insulted me

"Wh-what!"

"Twenty dollars. You want your name in the papers?"

A flush began in the middle of his cheeks and spread like red ink on a blotter. Wanda looked straight at him with cold, hard eyes, and her breathing was very rapid.

"All right," he gulped. "Don't scream. Don't scream."

She took the bill, said, "That's a good boy," and vanished among the commuters.

Wanda had no fear of being followed. This young man, once the shock was passed, would be too ashamed to report the sudden blackmail. Wanda dismissed him from her mind and sought out a certain pawnshop.

There she spent part of the twenty for a six-gun loaded with bullets. It made her hand bag bulge a bit and threatened the strap with its weight. Wanda's hate, steeped in cell and shop, through silent hours of a grayly mean existence in an atmosphere of viciousness, among women of utter depravity, would presently find its expression in the sullen roar of that six-gun. Hugging the weapon to her, she knew a calm deep exultation, but her eyes had a venomed glitter.

The address was in Divisadero street. She passed through an entrance between two stores and climbed three flights of stairs. As she knocked on the door, Wanda hoped that Bebe would be alone; there was something grimly pleasant in the thought of Tommy returning home to find his woman murdered. She held her hand bag open, as though searching, perhaps, for the lipstick.

A lock clicked, the door swung inward, and Tommy stood gaping before her.

"Welcome home!" sneered Wanda, drawing the gun from her bag.

He retreated backward into the flat and she shut the door behind her. Round were his eyes and amazed and scared, and in the partial light of the hall his face seemed very pale.

"Gee, kid, I'm glad to see you," he gasped.

"Sure you are! You can hardly keep from throwing your arms around me!"

"I thought they'd let you go pretty soon."

"But not quite so soon! Where's Bebe?" At that his manner suddenly changed and he was alertly defensive.

"She ain't here. Why?"

"Never mind why. You're lying."

"Bebe ain't here, I tell you." He raised his voice as he said it, but the warning came too late. A woman emerged from the bedroom and halted, startled and staring.

Wanda's hatred flamed into words. Words she had not uttered in all her life now hissed from her angry tongue—words heard in the dusk of that cell block, from the lips of degenerate women. Tommy was standing in front of Bebe, and she stood like a Fury before him.

"For God's sakes, Wanda—"

"You shut your mouth! After the way you done me!"

He looked wildly around him, searching in vain for succor. Even in her anger Wanda saw that his fear was chiefly for Bebe. She knew a pang of envy. He had never cared for her like that; a closer bond was between them.

"Get over against that door!" she ordered. "Get out of Bebe's way!"

"Why?"

"I'm going to shoot her dead as hell!"

It was then, even before he could say a word, that she heard a querulous cry.

"What's that?" gasped Wanda, lowering the six-gun. But the truth had already struck her.

"The kid."

"Whose kid?"

"Why . . . ours."

The infant's cries grew louder, and Bebe Cole was wavering between two very primitive instincts.

"Let's see it," said Wanda. "You go in first. And I'm keeping you covered—get me?"

The baby lay, all mouth and quilt, in the middle of a double bed. Bebe took it up, and the fear left her face, and something was there instead.

"How old?" asked Wanda.

"Just three weeks."

"Boy?"

"Girl," was the husky answer.

She watched them a moment, the mother and child, with a little twisted smile.

"Name her Wanda!" was all she said and bitterly turned away.

There was not much trouble to find a job as waitress. It was a place which specialized in pretty girls, and the business men who filled its tables were generous with their tips. Luncheon was the principal meal, but the dinner period, though quiet by contrast, still offered a fair return. The serving staff worked alternate evenings from five to half-past eight.

Wanda pawned her six-gun and threw away the ticket. She sullenly buried the hatred born in prison, laying it away beside the love which had sent her there to suffer. Ten pounds of infant barred her way more effectively than a bodyguard.

But the shadow of San Quentin hung over her just the same. It was an intangible menace, ever present, not less haunting because so vague. Sometimes, in her room, she would burst into tears, unable to lose the feeling.

Often Wanda thought of the young man on the ferry boat. He was the only blemish on her record since leaving prison. That $20 bill began to trouble her conscience. Could it be that this was the reason for her feeling of apprehension?

She treasured her tips and postponed buying new clothes. Five o'clock one evening found her at the Ferry building, hovering near the waiting-room of the Sausalito boats.

Then she saw him, a nimble young man with a brief case, darting under an archway and dodging past slower commuters. He almost collided with Wanda.

"Oh, I'm sorry." His eyes went wide in recognition and he hastily groaned an "Oh!"

"Don't get nervous. I never collect on Tuesdays."

He stammered something about catching the boat, but she had a hand on his coat lapel.

"Wait a second, can't you! I just want

TREES WITH SUMMER FOLIAGE

by John A. Armstrong

There is a tendency on the part of most California tree planters to use only evergreen trees in the gardens,

TO INSURE SUCCESS

with your planting

ROM SAUSALITO

" Says Wanda. "I Go Cuckoo Over One Me in Prison; I Go Crazy Over Another nd It Sends Me to Sea."

ul Deresco Ausburg

Words she had not uttered in all her life now hissed from her angry tongue.

to pay back the twenty I borrowed."

There was a rumble as the wooden gate slid shut. The young man stared down at a crisp yellow bill and seemed rather reluctant to take it.

"You're not going to be mad at me, are you?"

"Mad?" he said vaguely, as though trying to comprehend her. His face was quite red, and he kept looking from her to the money. "No, no, of course not. No, I'm not mad at you—not a bit."

"Shake, then. And thanks for the loan!"

Wanda smiled as she took his hand. "You're . . . you're sure you don't need it any more? You know, this is something I never expected. I didn't know you were straight, like this. I thought you were . . . you know, a sort of cheap thief."

"Not that!" gasped Wanda in mock dismay.

"That's what I thought. Now don't be offended, . . please."

"Well, it's not very nice to hear such a thing. I suppose you told the police?"

"No," he said decidedly and his clear blue eyes met hers.

"There, mama's not mad any more. It's too bad you had to miss your boat."

The young man's confusion disappeared. Then, as they talked, he had an inspiration which was nothing short of breath-taking. Since getting back this twenty amounted almost to finding it, they might go have dinner together just by way of celebration. He would telephone his mother not to expect him home till late. The young man's eyes were eager as he asked her would she do it.

His name, he said, was Philip Beam, and after an instant's hesitation she told him her own—correctly. It was at the table, in a sea-food restaurant near the Ferry building, that he suddenly asked her the question:

"Say, what did you want that money for?"

A notion captured Wanda's fancy and she said, "To buy a gun."

"A gun! But . . . what was that for?"

"To shoot my brains out with!"

He stared at her with half-incredulous horror, and she solemnly nodded her head. What a perfect sap this young man was—but Wanda liked his eyes.

So she told him a harrowing story of a motherless girl and friendless. There was only a step-father left, she said, and he had been so very harsh she couldn't stand him any longer. Then she had run away from home and tried to make a living. Wanda shook her head as she smiled a sad little smile. It was a hard, hard world for those who did not know their way—especially for girls who were pretty.

"Or do you think I'm pretty?" she faltered teasingly.

"Just as pretty as a picture."

"It's not always easy, being pretty," she went on tragically. "That morning when I saw you I was just desperate. I really didn't care a bit if you called a cop or not. But I felt bad afterward, taking your money like that. And I didn't buy a gun with it, after all. First I thought I'd try just one more time to find a job—any job, so long as it was decent. And I got one, too, in a restaurant waiting on table. I'm only a waitress!" she added, fixing large sad eyes on Philip Beam.

Impulsively he thrust out his hand.

"You're the pluckiest girl I ever met." The young man seemed on the point of shedding tears. "To think you almost . . . killed yourself! But are you making enough to get along?" he wondered. "See here, why not take that twenty?"

"I'll get along all right," she thanked him. The saphead believed her story!

He told her about himself. He compiled statistics for an investment firm: corporation earnings, expenditures, all sorts of data to make up reports on stock-and-bond issues. It was interminable work. Usually he took a batch of it home with him—indicating the brief case—but tonight, he laughed rather recklessly, the statistics could go to blazes. They'd see a movie together.

Philip Beam's life was an open book for Wanda's perusal. He lived with his mother in Sausalito—just the two of them and a cat. The cat's name, he explained, was McIntosh. Philip made just two hundred a month, but he was working awfully hard and he knew that soon "they" would raise him. It was tough sometimes, making only two hundred, when some of the dapper young bond salesmen earned twice that on half the work. But "they" were bound to raise him.

At nine, when they left the movie, he told her with a light-hearted laugh that he was glad she'd chosen him, out of all the men on that ferry, to "borrow" twenty dollars from.

"I don't know any girls very well. Just those I've always known—the neighbors in Sausalito. I'm glad we're such good friends. We'll do this again, if you'd like to."

"Sure, Phil."

When he was gone Wanda pulled off her hat and threw back her head and laughed.

"Didn't even try to kiss me!" she scoffed. "God knows he wanted to—the saphead!"

Dropping on the bed, she stared at the torn, faded window shade. A frown clouded her face and she shivered as though with cold. That feeling was present, stronger than ever before—the vague sense of something hovering, the shadow of grim San Quentin. Repaying the money had done no good. That feeling still was present.

The restaurant was rather steep for Philip Beam's purse, but he came occasionally at noon time just to see her. At first she took his tips, which were out of all proportion to the bill, without the least compunction. Indeed, she was laughing at him, half contemptuously, half in amusement—but always a trace of uneasiness would lurk behind her laughter.

Later, after she'd been out with him a few times, Wanda had a change of heart.

"But your tips are your salary, practically—considering what they pay you."

"Well, you don't have to pay me a salary."

"It's only right. You've earned it."

"Look here, stocks-and-bonds cowboy, if I wanted a statistic about something, would you charge me for it?"

"Sure wouldn't."

"There you are!"

"But, this is different. You're not a regular waitress, like other girls. You're just an amateur at it, and they're professionals. You need a little encouragement."

Wanda colored, to her great annoyance.

"Well, I won't keep your money if you do leave it. I'll take it to the chef and see if he'll sell me a kiss for it!"

"As if you'd have to pay for that!"

"You don't see me getting any, do you?"

The young man held his breath and seemed on the verge of something.

"Well, naturally, you wouldn't be when anyone else is around."

Suddenly he seemed unhappy.

"You poor damn fool!" muttered Wanda.

"What's that?"

"I said it's getting cool. Come on, let's move along."

He was a great puzzle to her, but after seeing a certain movie she began to comprehend him. The picture, a costume drama, showed romantic love at its sighingest. The hero wore a sword, and in a moment of great emotional stress, when about to set forth on a desperate venture involving his lady's good name, he passionately kissed her hand! Wanda was amused, as by a fairy tale; but Philip Beam's eyes were shining as he told her, when leaving the theater, that it was just like stepping from the eighteenth century to the twentieth, the picture had seemed so real. Not till the hero was married to the lady did he kiss her!

A strange young man, this Philip Beam, like no one she'd ever known. Because of his strangeness, Wanda found him immensely diverting; because of his honesty, rather disturbing. She enjoyed the evenings spent with him even more than those with restaurant patrons who invited her to parties. These men she could easily understand; they were variations on an old theme, long familiar to one who had worked in Conbee's Ritz cafe and in the Blue Elite.

There was one item in connection with Philip Beam which kept proving distinctly bothersome. That was his mother. Every week he urged her to spend Sunday with them in Sausalito. He wanted Wanda to meet his mother, and she was especially anxious not to. It seemed inconceivable that two persons, even so closely related, could be as dumb as this innocent Philip. Besides, women had more sense about things—particularly women. The very nearness of San Quentin, only a few miles from the Beam abode, was in itself alarming. And there was McIntosh! That cat, if all Philip said of it were true, was so smart that it would doubtless hump and spit the moment it saw her.

Wanda was musing about this Sunday problem when "the dark guy" entered and went to one of her tables. She had seen him twice before. The first time was day before yesterday, when he came during the crowded lunch hour and was obliged to share a table with a stranger. She hadn't liked the way he smiled at her as he ordered. The second time was the following night, when he sauntered past her rooming house as she was standing in front with Philip.

Not more than a third of the tables were occupied now—the usual evening patronage. Wanda advanced with a menu card and lingered at his elbow. His hair was of the glistening black of India ink still wet. One spot on his scalp had no hair of its own, but was covered over with other strands which just partly concealed a scar.

"Bullet mark?" she wondered.

"How's Wanda?" he abruptly murmured, glancing from the menu.

She managed to regard him coldly enough, though her heart was sinking within her.

"Aw, cut it out, I'm a friend of Mabel's."

"Yeah?" she sparred. "Mabel who?"

"Mabel Eighteen, nine, forty-six. Now I guess you get me!"

Wanda knew that she was caught. This, then, must be what she had feared; the shadow was closing around her, and through it her past was reaching out to draw her into its darkness.

"What do you want?" she asked him.

Sharp black eyes looked casually around at the diners before he answered.

"I got the sweetest little set-up you ever heard of. Ten thousand in it, as easy as rolling a seven."

"Yeah?"

"An old bird, lousy with dough. It's a pipe. You play him for a daddy, and I . . . I'm your jealous husband. We'll split ten 'grand' between us. Okey, babe; bring us the Rex sole and a plate of shoestrings; cup of coffee right away."

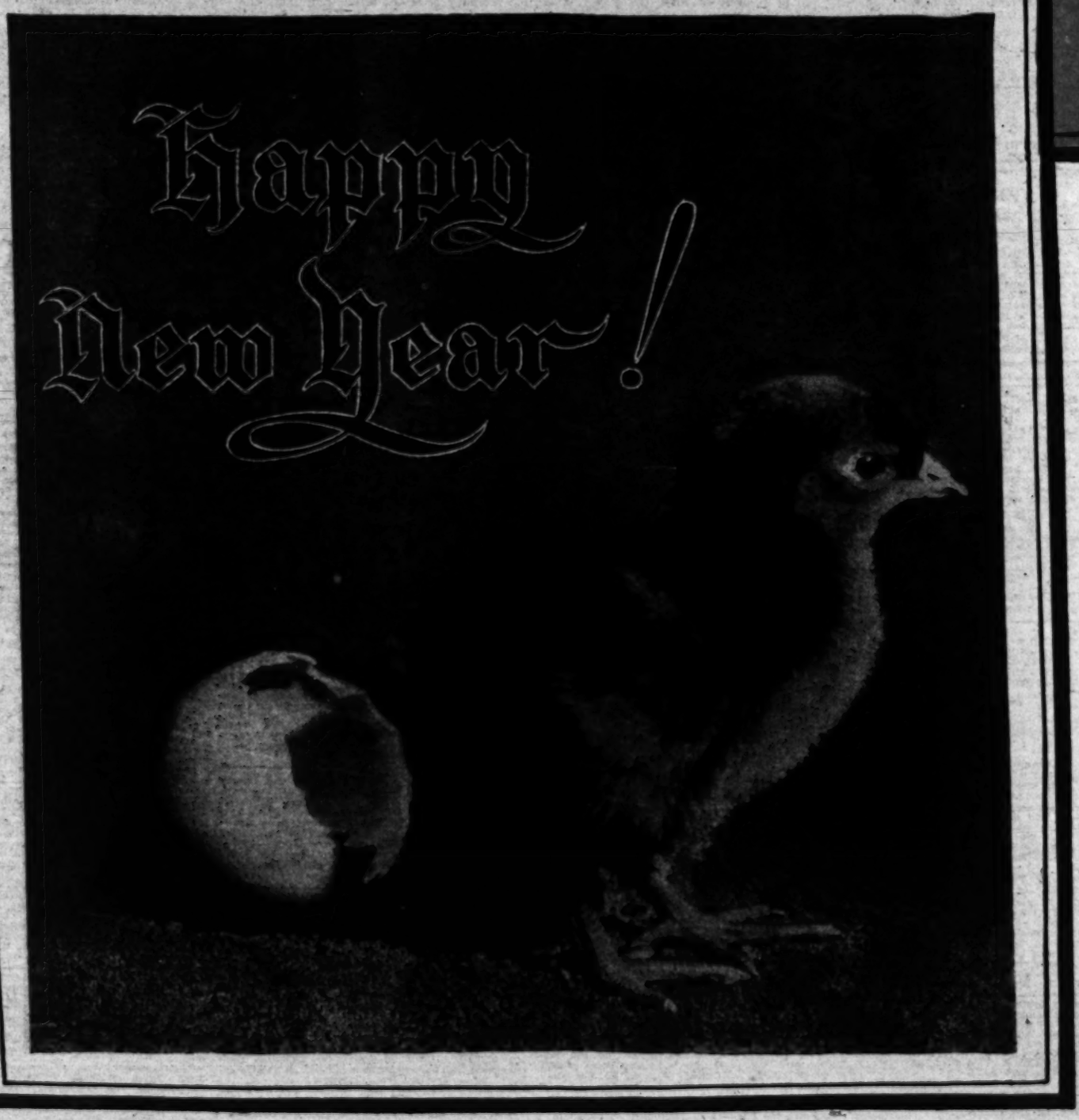
When she returned with the coffee, Philip Beam was hanging his hat and brief case on a hook near the service

December 29, 1929

Farm and Garden

MAGAZINE OF THE SUNDAY

Los Angeles Times



FOURTH ANNUAL MIDWINTER POULTRY SHOW, Jan. 1—5

SESBANIA'S IN SOCIETY THESE DAYS—By Iva M. McFadden

TREES WITH SUMMER FOLIAGE

by John A. Armstrong

There is a tendency on the part of most California tree planters to use only evergreen trees in the gardens, parks and streets of this state. It is a natural and laudable tendency to follow because we cannot have too much green foliage during any season of the year, and it softens and brightens the natural brown of our Winter landscape.

However, the writer is a native Californian and never fails to get a thrill every Spring from the fresh, green, bursting buds of the trees which lose their leaves in the Winter and which clothe themselves anew with the coming of warmer weather. The transition from bare, leafless branches to fresh, green foliage impresses the glory of the Springtime upon our consciousness in a way that nothing else can do.

Autumn Tints for California

Another desirable characteristic of the deciduous trees is the changing color of the leaves in the Fall before they drop. True, we do not have the severe Fall frosts which bring out the most brilliant colors, but there are some trees which color up remarkably well in California. One of the best is the Sweet Gum (Liquidambar styraciflua.) It is a native of the forests and swamps of the South Atlantic and Southern States, and is more closely linked with the old plantation life in the South than any other tree. In their native, moist swamps the trees attain great size.

Here in California they have not the size but they retain all their beauty, and all features of the tree are desirable for California planting. The red brown, fissured, corky trunk, the large, shining leaves which are exactly like six-pointed stars with one point missing, the resinous, fragrant sap, and finest of all, the changeful splendor of its Fall coloring combine to make it an interesting and delightful tree. The leaves do not turn brown quickly and drop, but fall off slowly, retaining their bright sunset hues until the last. In the South the trees exude a gum which a Spanish explorer described as being like liquid amber, and from this description the tree obtained its botanical name of Liquidambar.

Tulips on Trees

Another fine deciduous tree native to the same region as the Sweet Gum, but with a more northerly range, is the Tulip Tree (Liriodendron tulipifera.) It is faster growing than the Sweet Gum, altho not rapid, and it makes a medium sized specimen in California. The framework of the tree is singularly straight and symmetrical, and the tall, grey, smooth trunk is crowned with an oval head of ascending branches, clean and handsome. The leaves are always shining, turning to gold in the Fall, and have a peculiar blunt end, as though they had been chopped off. The showy, handsome flowers look like small tulips, with dashes of orange on their greenish-yellow petals. An interesting and beautiful tree, at any age, the Tulip Tree will beautify any California planting.

Silken Tassels from Persia

Another fine deciduous tree, quite different from the Tulip Tree and Sweet Gum, but possessing a more tropical aspect, is the Silk Tree, called Silk Rose by the Persians, and sometimes Pink Acacia in other countries because its finely divided, delicate, fern-like foliage closely resembles that of many Acacias. The botanical name is Albizzia julibrissin, a mouth-filling mixture of Italian and Persian. The tree is a native of Asia from Persia to Japan, and has become naturalized in our country from Virginia to Florida.

The flowers, borne over a long blooming season in Spring and Summer, are just as delicate and attractive as the leaves, each individual flower head resembling a soft pink tassel, and many tassels are crowded together at the ends of the branches. While young the tree grows quite rapidly and it does well in full sunshine or in partial shade.

There are two fine old trees of the Albizzia in the grounds of the White House at Washington.

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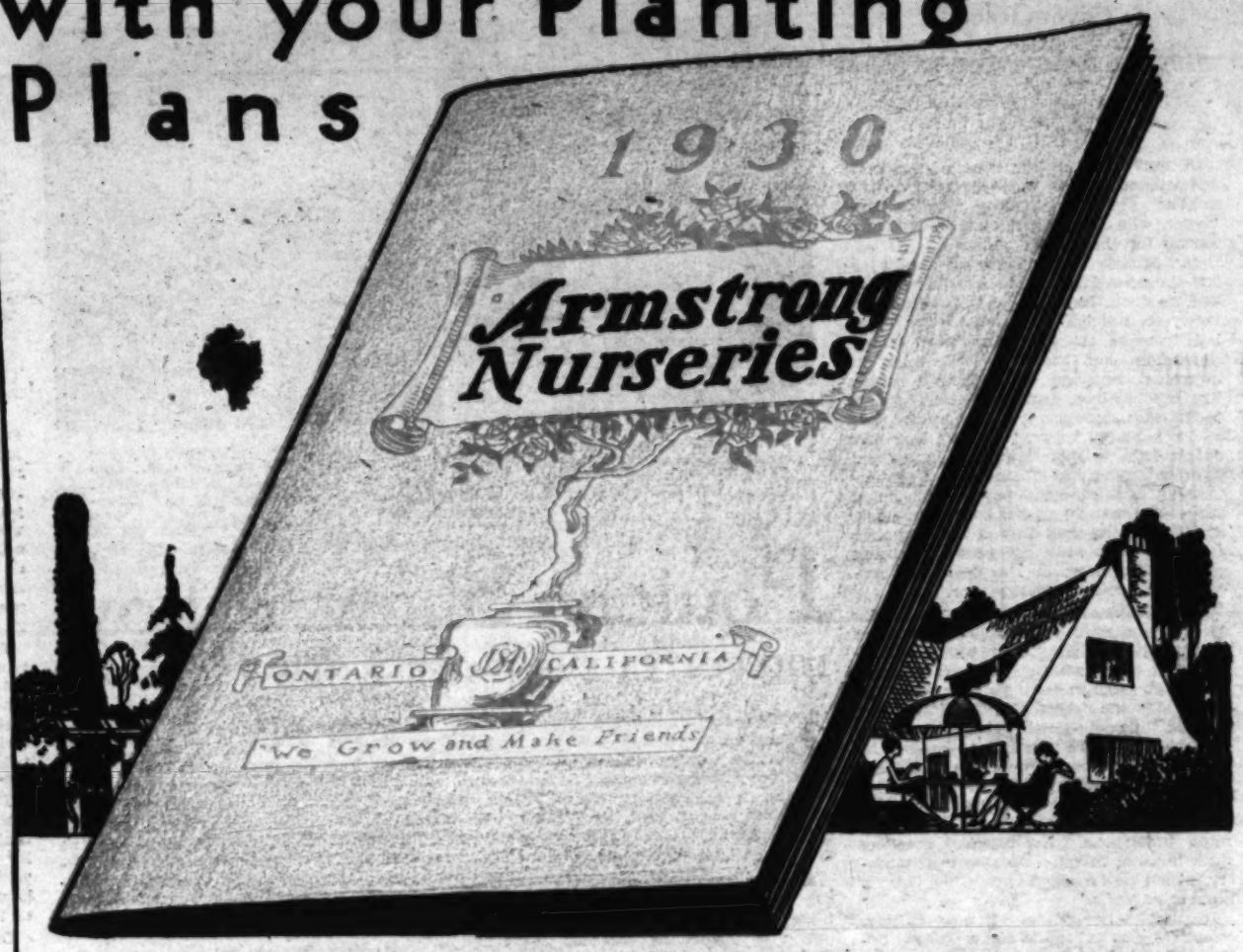

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12-29-29

COMMENT AND OPINION

Farm and Garden

Devoted to the multiform agricultural interests of the great Southwest and issued every week with the world's biggest Sunday newspaper.

EDITED BY HAROLD M. FINLEY

Communications from practical farmers, ranchers, stock raisers, poultrymen, gardeners and others engaged either in a large or small way in the vital work of agricultural production are gladly received. Address all letters to editorial department, Farm and Garden Magazine.

Back to Earth

IF THE well-intentioned efforts of National and State administrations and of leaders in American business and civic life mean anything, agriculture is due for a happier New Year than it has experienced for some time. The wish for happier conditions for the farmer in 1930 is more than a seasonal gesture. It would seem, for coupled with the usual felicitous thought, is a general feeling, amounting to intention, that something can and will be done to advance the interests of the producers of the soil. There is no question about it—the American public is heartily in sympathy with the agriculturist in his determination to put his vital industry on a truly prosperous basis.

The farmer's cue most obviously is a heads-up policy of action. The machinery of effective organization is his to command and he has certainly learned by this time that organized co-operative effort alone will put his business above the uncertainties that have encompassed it in recent years. And he can be reassured on one thing that has apparently bothered his mind not a little: What has occurred in financial circles in the closing months of 1929 has shown him that he need no longer feel any inferiority complex on the score of business understanding. Never in all his experience in ill-advised gambles has he made such a fool of himself as have the city folk with their stock splurgings. As he goes about remedying his own methods and getting his affairs in better order he can be comforted by the thought that some of the gratuitous advice that has been handed down to him by self-recognized authorities in business and industrial efficiency has perhaps after all not been as weighty as was assumed. The help and the advice, too, that he is getting today are coming from men more after his kind, and he knows it.

There are those who have analyzed the national situation and whose views command considerable respect who believe that the near-debacle in certain financial and business circles is going to help the basic old industry of the agriculturist by bringing public thought out of the clouds and putting people's feet on the ground. There is no business so important as the farmer's and there are no other products of industry so essential as his. Wise heads and the united effort of sane-thinking business leaders will undoubtedly bring the country safely through the shoals that for a time have been menacing the business ship, and when it is all over and that menace is but a memory, it seems altogether likely that agriculture will be on a firmer footing than ever. That would be an important consummation for the year now opening for which everyone would be glad.

How to Use Credit

Credit should be used only for productive purposes, the loan should not outlast the equipment for which it was used, payments on the loan should be arranged to a time when the borrower has the money, the lowest possible rate of interest should be obtained, long-term loans should be financed when interest rates are low, and the borrower should be permitted to apply payments upon the principal at any interest date or, better still, the loan should be made on the amortization plan. These are the summarized conclusions of Bulletin 480, University of California, college of agriculture, recently issued, entitled "The Use Value and Cost of Credit in Agriculture." The bulletin, by Charles H. West, assistant agricultural economist in the experiment station, is Paper No. 4 of the Giannini Foundation of Agricultural Economics.

The Market Place

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Proper Pruning Practice

(Continued from Page Thirteen)

Tea roses and Hybrid Teas receive much the same treatment except that more of the older wood can be left. Being much lighter plants, they will look pretty small

A Good Cause

Torrance Garden Club Working to Beautify Community

By Gardner L. Kane

Livestock-Poultry

Favors Rabbits

Bellflower Breeder Declares There's a Profit

By D. H. Clymer

A very good little business considering investment necessary, can be built up with rabbits, according to Roy Murray, Bellflower, who has devised his own system of caring for these little animals.

Mr. Murray has constructed a unit using the open lath system for plenty of air and no draft. He favors segregated units of thirty-six hutches each, protected by open lath frontage, the unit being 36x8x9 feet in dimensions and accommodating thirty-six individual hutches, each 30x36x21 inches The hutches have "hardware cloth," square mesh wire bottoms. A community hay feeder is placed between hutches, and does double duty, so that eighteen mangers and eighteen feed troughs take care of the entire unit of thirty-six hutches. Each hutch is provided with an anchor board and a box, the latter being used only at kindling time and thereafter, while the young are being reared. The doors and mangers are covered with one-inch poultry wire.

Mr. Murray has experimented with rabbits for the past three years, and has centered upon the New Zealand White and New Zealand Red. He insists that any rabbit producer can make wages if he engages in the business to the extent of maintaining four of these thirty-six-hutch units.

Three things are essential to success, he says—proper housing, proper care and attention, and elimination of in-breeding.

Profit can be made, Mr. Murray insists, either by rearing for breeding stock or for meat production. He features breeding stock himself, in connection with a hatchery, which he has been operating for a number of years.

His rabbits, he declares, are not sunffling, or suffering from disease and are hardy because of proper ventilation, sanitation, and generally healthful surroundings.

The lath-front rabbit unit devised by Roy Murray, Bellflower, which, Mr. Murray says, gives ample ventilation without drafts.

Cranberry jelly can be cut into any number of fanciful shapes to make an attractive garnish for salads and desserts.

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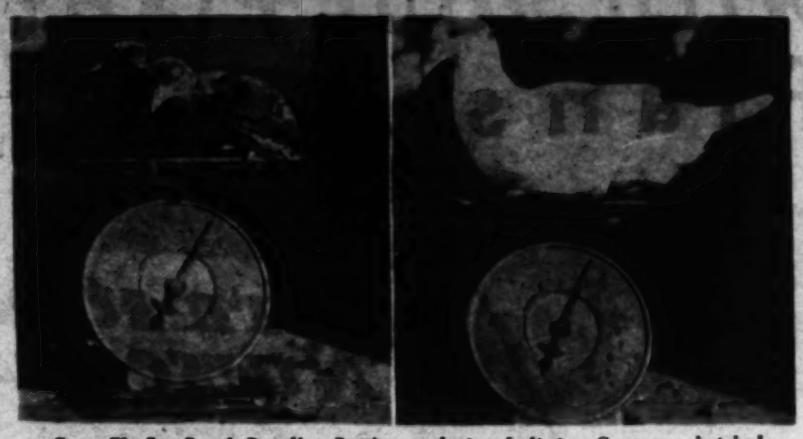

Some Chaffey Squab Breeding Station products. Left, two Carneaux, hatched from a double-yolked egg and weighing two pounds at 15 days of age. One is red with a red beak, the other dark, almost black, with a black beak. Right, a White King squab 25 days old, weighing more than one and three-quarters pounds.

Poultry Show Ahoy!

MIDWINTER EVENT OPENS NEW YEAR'S DAY

THE fourth annual Los Angeles county midwinter poultry show will be held in the Armory Building at Exposition Park, Los Angeles, January 1 to 5, inclusive. Judging from inquiries received from a widely distributed area, outstanding displays of poultry, pigeons and rabbits will be made according to officials of the show.

While a preponderance of the exhibitors will be Southern California breeders, every State on the Pacific Coast will be represented by entries, as will also Texas and several eastern States.

Club meetings and conventions will enliven the show. The California branch of the American Barred Plymouth Rock Club will hold its convention, and there will be State meetings of the American White Plymouth Rock Club, National Single-Comb White Leghorn Club and National Columbian Wyandotte Club, while the Rhode Island Red Club of America will hold Pacific Coast District and Southern California Branch meetings. The Rose Comb White Leghorn Club people and the California Breeders of Rare and Fancy Fowl Club will hold meetings, and the Australorp Club of America will hold its national gathering.

In connection with the poultry show there will be a pigeon show under the auspices of the Los Angeles Pigeon Club. This exhibit will also bring entries from practically every section of the United States. A rabbit show will also be staged.

The Los Angeles Poultry Show, held annually under the auspices of the Greater Southern California Poultry Association, is coming to be looked upon as one of the outstanding midwinter poultry events of the Pacific Coast. The judges, chosen from a list of the best-known in America, will include George Robertson, Division of Poultry Husbandry, Dominion of Canada; William C. Tallant, Edmund, Okla., president of the judges' section of the American Poultry Association, and Erle Smiley of Seward, Neb.

Cash prize awards will be supplemented by trophies and the brand new Farm and Garden cup for "best bird in the show" will be the goal toward which all the fowls will be pointed. This handsome big cup is the lineal successor of the old Farm and Orchard trophy, which was won permanently by Earl J. Horner of La Verne at the last poultry show of the Los Angeles County Fair.

The new cup will be offered under the identical conditions placed upon its predecessor, that is, it will be put up each year at the Pomona show and the midwinter, and must be won twice by any competitor to become a permanent possession.

The Farm and Orchard cup, under those conditions, lasted less than three years before passing out of competition. First put up at the Heart of Los Angeles Poultry Show in January, 1927, it was won by the late H. L. Gill of Glendale, Mr. Horner took his first leg on the cup that fall, at the Pomona show, and held it for a year, until, at Pomona, in September, 1928, it passed to A. A. Kirk of Arcadia. Sly and Lyons of Los Angeles took the big trophy at the 1929 midwinter, and Mr. Horner, by winning it at the 1929 Los Angeles County Fair, regained possession, for all time.

Considering the general excellence of the exhibitions at these two shows, possession of the "best bird" cup offered by this magazine has come to mean a real title of nobility, and an honor well worth striving for.

Money in Sheep

Orange County Ranch Turns Out Wool and Lambs

Orange county also has sheep. Near Stanton, six miles west of Anaheim, a fifty-acre sheep ranch is operated by Rudeen and Bechley. They run nearly 4000 sheep in this limited area. The farm was purchased in 1925 originally for a hog ranch and some 9000 head of hogs were raised over a period of three years. In 1928, the hogs were sold off and replaced by sheep. Of the total stock of 4000, approximately 1500 are lambs now ready for market. An average of 600 fattened lambs is sold each month to the markets in Los Angeles.

The feed is placed on cement floors to a great extent. Cement watering troughs are located at various points throughout the ranch and sheds are provided for the sheep for shade. The sheep are clipped twice a year, with approximately five pounds of wool per head obtained at each clipping, making ten pounds per year per sheep at an average price of 24 cents per pound, although at times the price is as low as 15 cents. A woolen mill in Los Angeles buys all the wool.

The investment in the sheep on the ranch represents an expenditure of more than $28,000, in addition to the other expenses of land, buildings, equipment and cost of maintenance. Three men are kept busy attending the sheep. The pens are scraped twice a month and the sheep inspected for any possible disease.

The refuse fed is composed of greens not used in the markets and is clean and healthful. Other feeds used are rolled barley and alfalfa meal, both of which are valuable for the fattening of the young lambs. Approximately five months is needed to fatten a lamb for market.

One of the many interesting departments of the ranch is the hospital where all sheep showing any symptom of disease are treated. All sheep brought into the ranch are dipped before entering the pens to prevent the spread of any ailment.

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Mid-Winter
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FARM and GARDEN
Magazine of the Sunday Los Angeles Times

Shall We Limit Our Crops?

Review of Past Year's Agricultural Activities Shows Wisdom of Considering Production Control

By George P. Clements, M. D.
Manager Agricultural Department, Los Angeles Chamber of Commerce

THE past twelve months in California agriculture may be characterized as a period of relatively low yields and higher-than-average prices. There were several important exceptions. That was to have been expected in California, where wide diversification in crop production is the rule. Yet, when all records are in, it is expected that farm income for 1929 will have equaled or exceeded that of 1928.

But high totals in production mean little to the individual producer, who is the backbone of our agricultural structure. The fact that California has maintained its high rank in total farm income as compared with other States, may interest city groups and promotional organizations, but it is of no particular significance to the grower whose costs and income figures are often still but distantly related.

Reports so far available do not give us any specific information on certain crops. However, it is fairly well determined that satisfactory profits were made in many lines, and that other groups did not fare so well. And, because weather conditions were "spotty" and variable, certain areas of the State were badly hit while others came through with flying colors. An instance of this is seen in the fact that deciduous fruits of Northern and Central California were quite seriously damaged by frost, while in the south, frost damage was slight and growers made money. In every way, weather influence was such that the year may be characterized by that popular California adjective—"unusual."

Lesson Driven Home

The past year, with yields lowered by natural influences, seems to have brought about an increasing appreciation of the necessity for co-operation looking toward the control or limitations of production. This is a pet subject with me, and although I would not go so far as to say that we will ever have a program of entire production control—the human element precludes any possibility of this—I do believe that we will see greater co-operation on the farm, resulting in the limitation of production to a degree that will materially assist in the solving of our surplus problem.

We have set a standard for the rest of the nation in collective merchandizing of farm products, yet we still lack co-ordination in production. We fail, as I see i t, to realize that, as producers, we constitute a monopoly. And people must eat.

We are all concerned with one job—the production of food and raw materials which constitute the necessities of life. Striving aimlessly, blindly and greedily to get the utmost out of the soil, however, we produce a surplus which deprives us of any possibility for returns commensurate with our sacrifice in personal effort or for our invested capital. And what is more, we lose the premium returns we should have from our outstanding efforts in building up strong merchandising facilities in the shape of co-operative marketing agencies.

In maintaining quality, we have really accomplished worth-while results in a co-operative way. The leadership in this move, however, has come largely through regulatory agencies, which have taught us its value.

As far as co-operation in shaping the factors which control production are concerned, we are woefully weak. These factors largely constitute legislation which of fects production. An instance of this is seen in the question of Mexican immigration. Although the major agricultural activity of California is dependant on an ample and fluid supply of labor, and it is generally recognized that Mexico is the only available source of such a supply, agricultural groups not touched by this problem have failed to support those who are in need of this labor.

This year, there was again a decided shortage of labor in many districts of California, particularly in the cotton harvest. This shortage was greater than that experienced during 1928, and it is a foregone conclusion that our needs will increase. These shortages mean severe losses in money—very often the difference between profit and loss on a crop. It would seem, therefore, that every agriculturist in the State, regardless of whether his own operations are effected, should see the importance of this matter, and join in opposing any impractical measure designed to limit our labor supply.

A like situation exists with respect to many other problems which California agriculture faces today. Just at this time, when agriculture really has the proper set-up to materialise her strong position, there is a decided lack of unity on major problems.

The past year has given us the Federal Farm Board and the State Farm Board. The former, administering the Agricultural Marketing Act, which was the outcome of farm relief agitation, has got under way slowly, yet some worth-while results have been achieved. In California a loan to raisin producers stabilized market conditions materially. In other States, the support of the board, in funds and advice, has resulted in new producer strength.

The State Farm Board, of course, acts only in an advisory capacity to the State Department of Agriculture, but it can be quite helpful. This group of agricultural leaders, recently selected by Gov. Young, will no doubt assist materially in the working out of problems of vital importance to California agriculture.

But regardless of how much power is vested in such agencies, and of how conscientious and earnest they may be, they cannot help the grower if he does not go to them with a co-ordinated program. The Federal body is set up on the principle that only producers under the co-operative banner are good risks; the State Farm Board will be able to function properly only if problems brought before it have the unified support of agriculture as a whole.

In other words, these agencies cannot save the producer. They can only push him a plank, which he must grasp in his own hands to help himself. Agriculturists should develop a strength of purpose necessary to bring the realization of the enviable position which is theirs if they but strive for it.

The Stock Debacle

I have often been asked, during the past few months, whether, in my opinion, the stock market crash would have any decided influence on the agricultural situation in California. I do not believe that the changing economic situation has as yet harmed agriculture in any way, and I am of the opinion that some decided benefits may accrue from this situation during the coming year. The natural and acquired advantages known to California agriculture have been responsible for placing that activity outside the affected circle.

Farmers themselves have not been touched by the stock market trend, for it has been necessary for them to make full use of their own money reserves. This situation has been accentuated by a limitation of agricultural credits in recent years for the California farmer, further necessitating careful financial administration. Obviously, he has not been in the stock market.

However, with a deflection of interest from the stock market, the agricultural credit situation should ease up, stabilizing many California farm activities which have been limited by inadequate financing, and providing a means for expanding other profitable lines of agricultural endeavor. As a result, the entire economic structure of California agriculture should show a heartening improvement.

Certain other advantages in production, in addition to more adequate financing, should become evident. Labor has always been a principal problem of the California farmer and, should there be a release of man power from industry, it will find a welcome place in agriculture. Too, new factors are needed in agriculture, and it is easy to believe that our farms will prove more attractive at this time to those who contemplate entrance into the activity.

We should also remember that, as far as outlets are concerned, the bulk of California production goes into direct consumption and does not enter industrial channels where price and volume may be affected by financial limitations in enterprise and operation.

Summing up the agricultural year of 1929, we can see many instances of progress. But many important problems have been brought into the open, some of them most importantly tied in with our agricultural advancement. Our greatest need at this time is unity, so that we may present a solid front on these problems.

A seven-year-old pecan grove, 30 acres of it, owned by T. J. Tubbs of Holtville. The trees are all Schleys and doing well.

Pecans for Desert

THEY NEED GOOD SOIL FREE FROM ALKALI

By Frank G. Beyschlag
Farm Adviser, Imperial County

A FEW Imperial Valley ranchers have been experimenting for several years with pecans. The most extensive planting in the valley is that of T. J. Tubbs south of Holtville, who has a thirty-acre planting of the Schley variety, about seven years of age, and now coming into production. J. F. Warner of Brawley also has a small planting which is commencing to bear. Ranchers in Yuma Valley have of course tried out pecans much more extensively and it is the yields and prices that some of the pioneer Yuma pecan growers have obtained that have made some Imperial Valley growers optimistic regarding the future of this crop in their area, the climatic conditions in the two valleys being so similar.

Imperial Valley ranchers contemplating the planting of pecans should consider carefully the large increase in pecan production which is in prospect in the Gulf States. In the southern States there has been extensive planting of the improved budded varieties in recent years. Most of this acreage of improved pecans is either not yet in bearing or is just coming into production. The Gulf States can produce pecans rather cheaply, as they have cheap land and do not have to irrigate. However, irrigated districts in the West are very successfully competing with eastern and southern sections in the production of many other tree crops. The West is succeeding in the competition because of better cultural practices, with a resulting production of larger yields and higher quality. If the irrigated sections in the desert Southwest, by using improved cultural practices, can produce larger yields of better quality pecans, they should be able to successfully compete with the Gulf States. It should be emphasized, nevertheless, that only on the very best lands in the desert irrigated valleys can the large yields of high quality pecans be secured which will be required in

(Continued on Page Eight)

Livestock-Poultry

Proper Pruning Practice

(Continued from Page Thirteen)

Tea roses and Hybrid Teas receive much the same treatment except that more of the older wood can be left. Being much lighter plants, they will look pretty small when the pruning is done, but they will fill out rapidly in the spring.

Bourbons, Austrian Briers and Ramblers need very little pruning. Removing the cross branches that seem to tangle the plant and cutting back the old canes a little usually suffices. Climbers and Pillar roses should be pruned to one-third or one-fifth their growth, according to the size of the plant. You need not sacrifice two-thirds of a rose that has hardly started on its career as a climber. In old plants the enfeebled wood should be removed, always. sometimes a rose bush or climber gets "leggy" and all the growth occurs toward the top of the plant, leaving a bare, ugly base. If you want to thicken it up, bend a couple of the old, long canes, tying them at a point near the base. Sap follows swiftly up a straight cane and sometimes the lower part of the plant receives insufficient nourishment to produce new growth.

Be sure to tie the longer canes to something substantial that will prevent them whipping about in the winds, which would work harm to the roots.

Incidentally, while you are pruning up the rosebushes, make sure the ground about the roots of the plants is firmly packed. The surface dirt can be kept well pulverized and light, but the earth below should offer the plant very firm support. After deep spading is done, the plant should never be left until the dirt has been trodden firmly in place again.

House Plant Care

Christmas being a time when many people receive gifts of potted plants, I dropped into the Edward Rust Nurseries in Pasadena to have a few minutes chat with R. J. Ross, who has given me much helpful information in the past and has devoted a long lifetime to the study and production of fine plants. I felt that he could give some worthwhile tips on their care. I was fortunate to go at a time when this firm had a great display of such plants in celebration of its first anniversary in its present beautiful establishment.

Excellent co-operation in the Torrance District Garden Club's program is secured from the Torrance High School. The agricultural classes grow material for the club and for the city in the school nursery.

In all the display, which included cyclamen, azaleas, spireas, camellias and poinsettias in red, pink and cream shades, the star of the occasion was unquestionably Begonia Melior, a plant of which there were hundreds of fine specimens of various sizes, all exquisite with their ruddy green foliage and cup-shaped blossoms of rosy pink. Begonia Melior is an improvement on the old favorite Cincinnati, and one which should bring delight to anyone receiving it.

The problem seems to be in the keeping of such a plant after one gets it. Speaking about the begonia, for instance, Mr. Ross declares its worst enemy is gas fumes. So many people depend upon gas, in some way, to heat their homes. Gas furnaces in the basement will send up enough of the noxious vapors to kill the plant. Vented radiators, if not too near the plant, seem to be safest for begonias and other delicate house plants. They can stand a good deal of cold, but not too much heat and they must be kept moist as ferns at all times.

All sorts of house plants, except those that require practically no moisture; should be watered on a schedule, just like you feed the baby. In the nursery, they are watered to the hour. They should have their drink once every twenty-four hours, and never enough to make them soppy. This is a very vital point in the proper care of ferns. A matter of a couple of hours of being dried out will give a plant a set-back. Let it have a second such experience and it begins to drop its leaves.

There is a very lovely new azalea, large flowered, in a pure soft pink. It is named Pink Pearl, and it suggests the coloring in the rhododendron of that name.

The other flowering plants were most attractive, particularly the double poinsettia which is growing so rapidly in favor. The blossom, in the case of this variety, has developed into bracts of the same color as the rest of the flower, and this eliminates the pollen that shakes off and discolors the bloom on the singles so frequently.

I could not leave the establishment without wandering out into the lath house a bit. I usually discover something I've not seen before, or am reminded of some plant that is most worthy of notice but has just been forgotten. Among the latter is Belleperone. I've often been attracted to it upon seeing it but it somehow eludes me later. Mr. Ross says this is one plant that has made a permanent place for itself in people's estimation. It is frequently planted in a most protected place where it gets a good deal of shade. If it is placed where it has full sun, the color at the ends of the plant growth deepen to a real red and make it all the more striking.

I know one person who has a large gardenia plant which flowers and constitutes the chief pride of his garden, apparently. He has often emphasized the fact that it did so well because it was in the shade of large trees and well protected. I saw flourishing plants bearing large, fine blossoms which had just been dug up from the open fields where they have had full sunshine. That, according to Mr. Ross, is the place to grow gardenias at their best, in localities where they will do at all. In the Pasadena and foothill section, and toward the coast, they thrive, he says, but in San Fernando Valley, they simply won't grow.

After seeing these plants and their blooms, I shall never be satisfied until I have a gardenia bush growing in a fine sunny spot.

Garden Expert Passes

Garden lovers of Southern California were grieved recently to learn of the death of Robert Adams, for so many years head gardener of the Redlands city parks, which, due to his untiring work, have won widespread recognition for their beauty. Mr. Adams had been a sufferer from asthma for several years and had had to be careful of his health. Worry over the loss of choice blooms stolen just before the fall flower show is said to have contributed to the turn for the worse he experienced before his final illness, the theft having made it impossible for him to make his customary fine showing. He learned gardening in Scotland and learned it thoroughly. He was an expert with almost all flowers and in the treatment of lawns. Those at Sylvan Park, his special pet, were beautiful. He was known to flower lovers all over the south and served as a judge at many flower shows.

Park Tree Survey

The Los Angeles Park Board is concerned with the problem of saving the fine old trees that are the chief ornaments to the city's breathing spots. Many of these patriarchs have become afflicted with various ailments. To the end of finding just what sort of a program would be necessary to forestall the inroads of disease and decay, the board has authorized W. E. Davey of this city to make a complete survey of the trees in need of such remedial measures and to include recommendations as to the methods of meeting the situation. Mr. Davey is a son of John A. Davey, pioneer of tree surgery and founder of the Davey Institute of Tree Surgery at Kent, O.

Alpinist to Talk

Flower lovers will be welcome at San Fernando High School auditorium on January 3 at 7:30 o'clock, when an illustrated talk on flowers will be given by R. J. Clary and A. L. Borsch, both of Oregon. Mr. Borsch is widely known as an alpine authority and since there is such a rising tide of interest in rock gardens, his talk should prove of interest and value.

No Difference

People who come to California from unirrigated eastern districts are inclined to look askance upon the application of lots of water to the soil, and to build up sales resistance to fruits produced under irrigation, provided they happen to think of it or be reminded of it. As far as Muir peaches are concerned, there is no difference in the drying ratios of the fruit that can be attributed to the manner in which the trees were irrigated, whether much or little, say A. H. Hendrickson and F. J. Veihmeyer in University of California college of agriculture Bulletin 479.

A Good Cause

Torrance Garden Club Working to Beautify Community

By Gardner L. Kane

"To make our community really beautiful to all who behold it"—thus the Torrance District Garden Club makes known an ambitious plan. The hearty co-operation of the members, of the Chamber of Commerce, high school agricultural department, and city street and engineering departments is counted on.

The garden club was conceived in the mind of C. B. Bell, a little over a year ago. Himself a lover of plants, he inspired others with his idea. It was sponsored largely by the American Legion post in which Mr. Bell is an active member, and the use of the post clubhouse was offered the organization.

From the first the club was popular. Its membership grew rapidly and it drew not only from Torrance but from Moneta, Gardena, Home Gardens, Keystone, Lomita, Walteria, and even from San Pedro, Redondo and Los Angeles. It now has 105 active members.

The first endeavor of the club was the staging of a combined gladiolus and dahlia show. Last June a gladiolus show was held. When the Escondido flower show was held, the Torrance Garden Club sent an exhibit, the Chamber of Commerce paying all expenses. Torrance brought back a cup, first prize in class.

The club meets once a month, on Monday evenings. Each time an exceedingly worth-while subject has been presented by capable speakers. The club has rather "majored" along the lines of dahlia, gladiolus, delphinium and rose culture during the past year.

The organization now has its program made out for the coming year. A committee was selected, composed of Vern L. Maxfield, Mrs. Dorothy Jamison, Herbert S. Wood, Jess Tonkin and Charles Leboeuf, to choose what are known as the "Community Betterment Projects."

To stimulate home beautification, a better-garden contest was selected as one of the projects, to begin in January and run for six months. It is open to all. The details of the contest are being worked out by a special committee.

At the last meeting of the club, the present unsightly approaches to the city were discussed. Plans are under way to give these approaches necessary treatment and so to transform them that they will no longer be "eyesores," but will react in a pleasing way upon the incoming motorist. The Western avenue approach, being the worst, will receive immediate attention.

Early Torrance residents can remember when the fields and lots about the city were ablaze in the springtime with masses of poppies and other native flowers. These have gradually disappeared until there are very few to be seen. Lamenting their loss, the club has a project on hand to sow poppy and other wild flower seed on the vacant lots and along the highways about Torrance.

Ventura has long been known as the "City of the Poinsettias;" the gardens of Eureka are a great blue sea of delphiniums in the spring; the glorious whits mists of cherry blossoms belong to Beaumont. The Garden Club believes that Torrance should have a distinctive community flower and is considering the selection of one as still another of its projects. A committee of expert gardeners and floriculturists, familiar with local conditions, will be asked to submit the names of several suitable flowers or flowering shrubs and a selection will be made from these by community vote. Then the plants will be propagated by the horticultural classes of the high school and sold to the residents of the Torrance district at a very low cost.

The members of the Garden Club have received a cordial invitation from the high school agricultural instructor to attend the night classes in landscape gardening held every Monday evening except that on which the club meets. On that evening the landscape class joins with the club in its meeting.

Overirrigation is discussed in a new bulletin, No. 479, issued by the University of California, college of agriculture, and entitled "Irrigation Experiments with Peaches in California." It may be obtained from county farm advisers or from the university at Berkeley.

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Is Be the Hot Desert Country's

Sesbania's in Society Now

Our Neighbors

A WEEKLY REVIEW OF AGRICULTURAL ACTIVITIES IN THE SOUTHWEST

San Fernando While small shipments of the new navel orange crop have been made from the Sunkist packing-house, it is too early for this district to forecast its probable output, according to F. A. Pomeroy, manager. The quality this season is good, and the fruit is large, the size being attributed to a smaller yield than usual, there being about a 60 per cent crop this year. With the navel crop coming on preparations are being made by other houses to complete their vegetable shipments, according to Homer L. Killen, in charge of one of the Orange Heights organizations. Several carloads of fine lettuce have been shipped out. The spinach crop this season will not amount to much, Mr. Killen says, being of inferior quality.

After receiving an official "o.k." from Bruce L. Coulter, district forest ranger, plans will now be made by classes in forestry in the San Fernando High School, under the direction of William T. Sterling, to reforest portions of Lopez Canyon in the valuable watershed section northeast of this city. The class has been doing valuable work in replanting portions of Clear Creek burned over a few years ago. The high school has a good-sized nursery of young trees suitable for planting and many of these will be used. Another method will be that of seeding the grounds. Mr. Sterling, instructor in forestry, reports that the Clear Creek Canyon workers disregarded former methods and planted seeds in the ground immediately after the fire. Most of the squirrels and rodents, having fled from the fire, did not return in time to make inroads on the seed before sprouting took place. Today the area is covered with young trees between eight inches and two feet in height.

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San Luis Obispo What is planned to be the most ambitious experiment ever conducted in the State in connection with grain growing is being launched here by the University of California, co-operating with Peterson Brothers of San Miguel. The work will include soil moisture tests, nitrogen determinations, and the study of plow sole and efficiency of implements. Attempts will be made to determine the relative values of clean cultivation as compared to weeds in summer fallow, the effectiveness and economy of various implements, the effect on the soil of cultivation at various times during the season, and the effectiveness of tillage operations in the control of weeds, such as wild oats.

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Westmorland A series of meetings have been held throughout Imperial Valley on the subject of hay grading. Five hundred dollars is needed to finance the lighting system needed in the station, and the hay improvement association is now soliciting funds. Since much of the alfalfa hay leaves the valley by truck at night, a flood-lighting system is necessary. The expense of operation is to be borne by the Federal government at first, in the hope that the station will soon become self-supporting. Inspection charges are to be small and, while inspection is not compulsory, it is presumed that all producers of good hay will welcome the guarantee of quality which they can get in this way. The station is to be located in or near Westmorland.

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Bryn Mawr Records of the railroads here show that over fifty cars of oranges were sent from the Redlands-Crafton-Bryn Mawr district for the eastern market during the holidays. Shipments for this market are now over and while the total was not as large as expected, it was large enough, according to shippers. Growers were urged not to ship much fruit for the Christmas market. Good prices were assured if the shipments were not heavy and shippers say that the crop is short enough so that better prices can be expected later in the year. Redlands shipped only well developed, sweet and well colored fruit for Christmas stockings, reports indicate.

A field of winter peas in the north end of Imperial Valley

Calipatria Imperial Valley farmers look favorably on pasturing young stock, and S. C. Auer is among the foremost to take up the industry. He has 847 Hereford and Shorthorn calves from six to eight months old that he is feeding. He says it is a profitable business. Mr. Auer has been an Imperial Valley landowner for the past five years. He has 480 acres five miles northwest of Calipatria, 220 in barley and alfalfa, 170 in fall peas and thirty in lettuce. The Alamo River divides the acreage. He has realised good returns with peas. In one picking he says he got about five tons from one lot on eight acres. His crop has shown but very little harm from frost and he has observed that there is less damage experienced in a line north of Calipatria and running to the Salton Sea.

Close to 4000 sheep are being pastured on the E. J. Waddell ranch four miles northwest of Calipatria this winter. W. J. Auckerman is manager of the 487-acre ranch which is largely in barley and alfalfa. The pastures run from forty to eighty acres each and when a band of sheep feed off one piece they are changed to another while the first is irrigated and allowed to grow. The greater number of sheep belong to the Vail Company. Last year, while the company sheep were on the ranch, 800 twins were born in the lambing season.

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San Bernardino Farm Adviser H. J. Wilder of San Bernardino county has returned to his duties after seven months of sabbatical leave. Mr. Wilder has been studying soils and fruit under European conditions, and included in his itinerary, England, Scotland, Germany, France, Belgium, Holland, Switzerland, Italy, Spain and North Africa.

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Phoenix The spring lettuce deal for Arizona is now estimated at 21,485 acres, of which 19,000 are in Salt River Valley. This is a considerable increase over the acreage of last year. The fall deal now being harvested will be from about 11,550 acres. Many of the shippers operating in Arizona grow lettuce in Imperial Valley also, the Imperial deal coming between Arizona's fall and spring seasons.

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Yucaipa The last of the apples and pears of this district have been cleaned up, closing what appears to have been a satisfactory season. While the crop was heavy, the demand was also sustained. In the case of apples, all produced went into the marts of trade, those of first quality being boxed, while the culls went to the by-products plants. The crop was of first quality locally, indicating that care in spraying and other modern methods is having its effect.

Hemet The first shipment of oranges for the 1929-30 season was made December 11 by the Little Lake Mutual Orchards, Inc. of Hemet, when a carload of the golden fruit left the packing-house. Individual growers not members of either the associated or the M.O.D. have sold some of their fruit to independent buyers and some has been shipped out by truck by these buyers.

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Tulare Tulare county ranchers have been warned to be on guard against itinerant stock and poultry buyers with whom they are not acquainted. Constable C. C. Castle has cautioned local farmers, following report of the victimizing of a number of local people by unscrupulous dealers, who usually come from San Francisco or Los Angeles, buy and give the unsuspecting farmer a worthless check in payment.

Dr. W. P. Kelley, professor of agronomy at the Riverside Citrus Experiment Station, who was recently honored by election to the presidency of the American Society of Agronomy as a recognition of his achievements in the study of soils.

Porterville Apparently the thieves who stole Jacob Pfuth's turkeys recently liked the sample, for they came back on the night of December 15 and helped themselves to some of his best chickens. Mr. Pfuth, a rancher near here, heard a noise in the pens shortly after 1 o'clock a. m. and went out to investigate. He arrived in time to see an automobile drive away. Constable A. F. Hubbs trailed the car for some distance before the tracks were lost.

Navel orange shipments from the Porterville district through the Tulare County Citrus Fruit Exchange were about completed by Christmas, while independent houses closed about a week sooner. Some shipments of navels will continue into January, but the harvest will be practically complete by the end of December. Until the middle of December, around 900 cars had been sent out by the exchange, which covers the citrus area from Strathmore on the north to Edison on the south. The Sunflower Packing Corporation had sent out about 100 cars and W. S. Sibley, about sixty-five cars.

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Fontana Seventy-five people attended a walnut field tour held here recently under the direction of the agricultural extension service. In the early forenoon the group met in the Arrow Clubhouse, where W. B. Hooper, extension specialist in walnut culture, college of agriculture, discussed walnut pruning, training of young trees, irrigation, and fertilization. Pruning methods were then demonstrated by Mr. Hooper at the ranches of L. F. Sisson, H. L. Wright and Capt. N. Nanassy. In the afternoon the permanent pruning plot was visited. The tour ended at the Copley and Warner 15-year-old grove, where soil management and field problems were discussed.

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Springville Irrigation was continued throughout the fall months in local orchards and pasture lands, and quite an amount of water is being kept in the main channel at all times. Irrigable pasture lands are not suffering, as the prevailing warm weather has induced a steady growth of green feed. A number of horses from outside districts are being pastured in the Springville district, where pasture lands are available.

Harry Sickles, cattleman of this district, moved his beef cattle from the Noler and Baker pastures early in December and placed them on a stock range in the Success district. Several shipments have been made recently and a firm price has been reported. Frequent changing of pastures is becoming necessary, as feed is short, due to the absence of rains. Dry feed has been abundant and this has been a great factor in maintaining the stock.

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Three Rivers Harvesting of oranges in the Three Rivers section was practically completed at the end of the first week in December. The crop was heavier than was at first expected.

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Solvang The annual meeting of the Santa Barbara County Farm Bureau was held here December 7. The new officers elected at the gathering are: J. M. Rutherford, Coast, president; Earl T. Jensen, Solvang, vice-president; Dr. E. O. Campbell, Goleta, secretary-treasurer; F. J. Fratis, Lompoc; Chester Rich, Goleta, and H. L. James, Hope, directors.

The report of Farm Adviser Raymond Ellis showed that during the past year 249 meetings have been held, with a total attendance of 11,324, and that 1486 individual farm visits have been made and 1367 office calls answered in addition to the regular project work carried on with various crops. Farm bureau membership has increased during 1929 about 25 per cent.

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Brawley Early lettuce has been selling as high as $4.50 per crate, which means good profits for the growers. The first thirty-five cars leaving Imperial Valley were all from Brawley.

Southland Gardens

Helen W. King

Proper Pruning Practice Calls for "Shear" Restraint

JUST around the corner is the New Year. January begins a new calendar year for garden lovers, faced, it is hoped, with greater zest that ever and with high resolution to extract every particle of beauty and delight possible to the garden. Gazing ahead some distance, we can anticipate the joy we will know when the "newcomers" bloom for the first time and we can really become acquainted with them. Just as with people, the more we know about some flowers, the more we find to admire. The reverse is true, as well, alas! If the day is sunny, we can linger in the garden and visualize the splendors to come and decide just what classes we will enter in some of the coming shows, and it will all be a most pleasant occupation. It won't pay to do too much of this daydreaming, however. January means work.

The word "work," applied to gardening at this immediate time, brings prompt thoughts concerning pruning shears. Spring and summer pruning, while practiced by some, needs the touch of an expert. Winter pruning is far safer, for the plants will be dormant. A few good frosty nights would put the plants in fine condition for this work, and surely we will have some such weather.

Pruning is a form of surgery, and to do a neat, clean job you will need something stronger than ordinary hand pruning shears to take care of old, tough wood. The kind that have wooden handles about two feet long, with short, curved blades, are the thing for heavy cutting. A pruning saw is an advantage in some instances.

Look carefully at the base of the plant and observe the new growth that is coming from it. As long as the plant is healthy it will throw out such growth. The only way to keep it from choking up and smothering is to remove the old, exhausted wood. You won't need an expert to tell you which is which. Give a chance to keep itself eternally young. The last thing anyone should do to a plant is to whack off the top until it presents a stubby appearance, and imagine he's pruned the poor thing. A plant is entitled to symmetry and surely that is what we want it to possess. It can't be had if the growth that is cut away leaves it lop-sided. Before you cut, picture in your mind's eye what sort of shape it is going to give the shrub. Cutting the old wood out may leave it looking rather thin, but remember that new growth in the spring will be rapid, vigorous and, incidentally, more healthy than the old would have been.

Mr. Average Gardener, of very limited experience, views the pruning problem with dismay. If he is wise, he takes time to find out something about it before he employs the shears. The shaded portion of the bush at the left indicates how said bush would look properly pruned. The artist, Bruce Russell, has pictured a "wind-blown bob" pruning effect at the right. The job undoubtedly looked good to pa when he wielded the shears, but he has laid up tribulations for himself later. He has whacked off the ends indiscriminately, left too much wood and failed to remove the cane that grew crosswise.

Don't Leave Stumps

When you remove the old wood, cut it off as close as you can to the base. Don't leave an ugly stump sticking up a couple of inches. A clean, close cut heals over soundly, looks better, and offers less refuge for insects that like to establish themselves in such places.

There is only one excuse for cutting off the ends of plant growth—and that is in topiary work, trimming up boxwood and cypress and such evergreens as are suited to formal growth. It is possible to control the rampant growth of some things like coprosma and pittisporum, for instance, without giving them a "bob" cut which will be unsightly. These rules for pruning are general, of course. Certain plants have peculiarities which make it necessary to adapt the rules to them, somewhat, and some plants present such a problem as to call for the work of an expert. But a majority of our garden shrubs can be safely handled in these ways.

When it comes to pruning roses, there are some very particular things to bear in mind. Your roses will bloom in accordance with the kind of pruning the plants receive. If you want large roses and quality of bloom, you will have to be rather severe with the job. If you want plenty of flowers, of average size, be temperate in the work. If it is a mass effect, for garden display, that you want—and there are some roses you will surely plant for just that purpose—a very little pruning will be necessary.

In pruning, the canes selected for removal should be cut to about one-quarter of an inch above the chosen bud—by "bud" I mean the small, pointed red growth lying close to the main stem, which will eventually produce a new branch. Care should be taken to select a bud that points out from the plant, not in toward the center. Such buds grow into the interlacing branches and will only have to be removed later.

Not all types of roses can be pruned alike. Very vigorous, strong types tend to run to wood and mere growth if cut back too severely. If the plants are Hybrid Perpetuals, cut out all the weak wood and interlacing branches and prune the old canes back to about six buds up from the base of the plant, unless you want to grow exhibition roses, in which case not more than three or four buds should be left. If you want garden display only, leave from five to seven canes and cut to about two-thirds their original length.

(Continued on Page Fourteen)

No Reason Why Bulb Beds Should Be Bare Until Spring Comes

Much as we enjoy the loveliness of bulb beds when they begin to produce bloom for us, they are a good deal of an eyesore with their bareness while we are waiting for the annual miracle of spring. If you have never sown nemophila seed over the bulb beds, try it this year and you will be promptly rewarded with a mass of dainty blue flowers and green plants. They will in no way interfere with the growth of your bulb plants, and will be out of the way before you have any occasion to dig up the bulbs. Being a wild flower, the planting of the seed is most simple. The surface of the bed should be worked up light and fine and before the seed is sown, should be thoroughly moist. Broadcast the seed and rake it in lightly, firming the dirt down again. Do not irrigate again until the seed starts to sprout.

Calendula, candytuft, gallardia, lupin and nasturtium seed-can all be sown in the open ground at this time with highly satisfactory results. It is a good time to start your hollyhock seed in flats. There is a strain of California Double Hollyhocks that bloom in six months from seeds and are particularly fine. They can be grown in the place where they are to remain, but it calls for a good deal more care than you may be prepared to give them. There is less risk if you transplant them from flats.

If you are not fortunate enough to have Eklonis—which belongs to the Dimorphotheca family, but is utterly different from its low-blooming sister with the orange flower which we know far better—keep your eyes open for it in someone else's garden. I think you will want to make friends with it, for there are very few winter-blooming plants that have proved so well adapted to Southern California gardens. It gives most generously of its bloom, which is suggestive of arctotis, only the white seems whiter and the blue center and the tint on the reverse of the petals is more vivid. It has the clean, crispy immaculateness of Delft china. It is too late to do anything but get acquainted with it this season. The seed or young plants must be set out early in September to get the best results.

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Sesbania's in Society Now

Wild Hemp, Once Dubbed a Weed, Proving to Be the Hot Desert Country's Greatest Soil Builder

By Iva M. McFadden

MANY so-called "wonder" plants have suddenly sprung into prominence, have furnished a brave amount of whoopee for a time and then have sunk into the comparative oblivion from which they came. There have been plants, on the other hand, growing under the most adverse circumstances and believed to be nothing more than troublesome weeds which have been found to be Nature's own answer to a soil upbuilding program. The sweet clover was long regarded as a nuisance, only to win recognition later as a useful builder crop for hard and stubborn soils.

In our own Southwest we have "discovered" a plant, very different from the clovers, but a legume none the less, that has all the appearance of being a true wonder crop. It, too, appeared as a weed—a nuisance in summer crops, such as milo, where seed was scattered by water or other means and allowed to re-seed each year. Ranchers were becoming exceedingly annoyed with wild hemp or sesbania and were wondering what to do about it when they awoke to the fact that it is in reality an asset to them.

It has taken years to convince growers of the unusual qualities of the plant. It is true that Coachella Valley used it quite extensively years ago as a cover crop, but it was largely discarded there because of the difficulty of turning under the mass of tonnage it produced with any equipment then in use. In Imperial Valley, its value as a cover crop has been recognized within the last few years. Imperial knew it all right, but not favorably, for it had been spreading, uninvited in the fields, especially in plantings of milo in which cultivation during the summer is limited. Many canal banks, too, were lined with it.

Status Is Changed

From now on, however, it seems likely that sesbania will be an invited guest on places where a summer cover or builder crop is needed. For such use it is being recognized as a plant of genuine importance in hot, reclaimed desert districts. This qualification must always go with sesbania—it does well only where the thermometer climbs to 90 or above, and it will not sprout at all in the winter season. As a cover crop for coastal points it would seem to be of little value, but for "warmish" areas such as the San Joaquin, Coachella and Imperial valleys in California, for the greater part of Arizona, Texas and New Mexico, indeed, for all places where the thermometer goes sufficiently high and where water is available, sesbania may well be regarded as a worth-while up-builder. Some of those who use it describe it in unqualified superlatives.

In the first place, it is not at all uppish about soil. It establishes itself on the poorest and most stubborn ground where almost nothing else will grow and is unusually resistant to alkalai. The roots which permit this achievement are themselves very vigorous, penetrating sometimes as deep as eighteen inches and measuring as much as three feet from tip to tip. This alone has a very good effect on the soil, the plant working down into it, opening it up to water and air, and loosening it as only a very deep-rooted plant can do. Sesbania roots, too, are covered with nitrogen nodules. As yet no other plant has been found with so many.

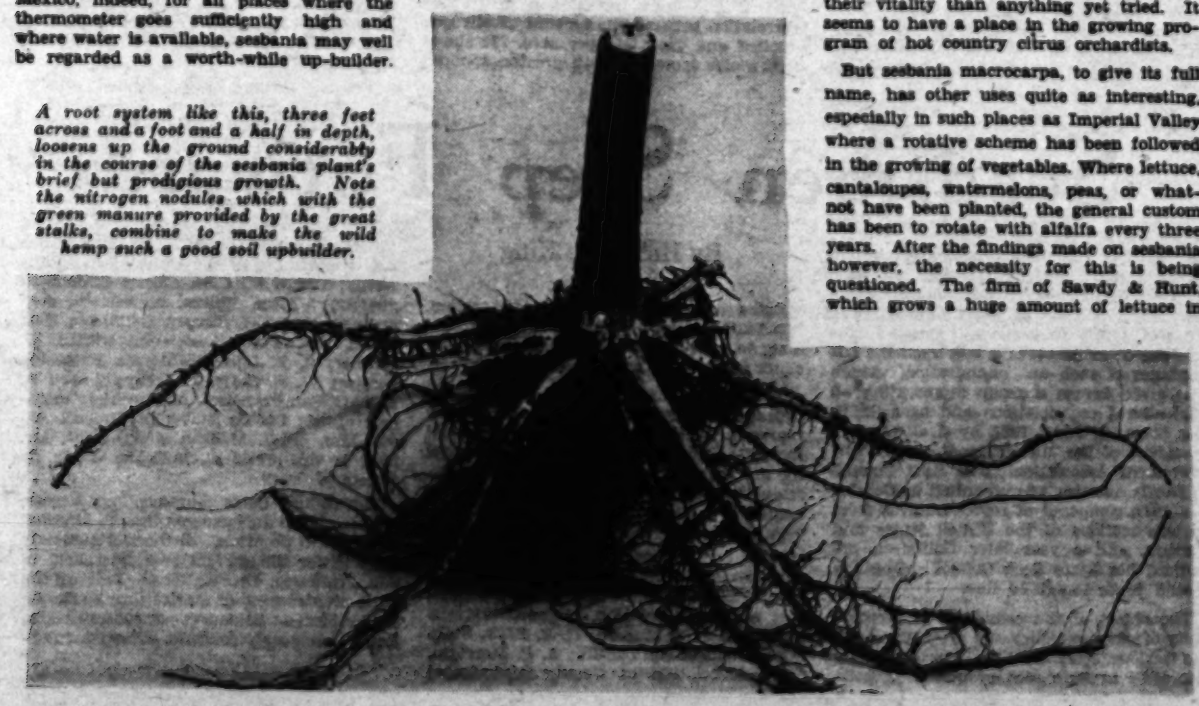
The plant itself is correspondingly vigorous. Its growth is almost as remarkable as that of Jack's bean stalk. It attains to eight or twelve feet with a limb spread of from four to six feet, and all in three month's time. Its leaves resemble somewhat the acacia's, being small and finely cut. Its flowers are pea-like, small and yellow. Its seed pods, one-eighth of an inch in diameter and eight to ten inches long, are thickly populated with small, dark brown seeds. These seeds are hardshelled and live over the winter in the ground to spring into life under the prompting of water and heat. The stalks are exceedingly fibrous, containing a high amount of moisture, and when put into the ground, decay rapidly. The amount of green manure procured from them as a cover crop is itself noteworthy, being variously estimated at from 10 to 14 tons to the acre.

Because sesbani a is an annual it need not become in any sense a nuisance if put under ground before seeding. The growers as a rule disk it down just before the seeds are formed, preventing unwanted reseeding and retaining in the roots nitrogen that otherwise would be drawn upward to help seed development. That, at least, is the way one grower explained it to me.

Good With Citrus

Sesbania seems to have established itself as an ideal summer cover crop for citrus where it can be grown in conjunction with that crop. If planted thirty pounds to the acre in May and disked in July, growers say, it will make a second growth, sprouting from the joints when irrigated. The usual practice, as yet, is to count on it as a single crop plant. The desirability of great height of stalk, especially in young orchards where the sesbania rose high above the trees, was at first questioned, but now growers believe that this feature is in itself beneficial, due to the shading the trees get in the hottest part of the day. Outside fruit where sesbania is all around seems to keep the fresh look of inside stuff. Weeds and grasses, including Bermuda, are stifled out and orchards are said to come out cleaner after sesbania than with any other treatment. Where trees have been planted on harder soils than best practice would indicate, sesbania is declared to have added more to their vitality than anything yet tried. It seems to have a place in the growing program of hot country citrus orchardists.

One look at this photograph of an Imperial Valley sesbania planting will afford convincing explanation of the high tonnage of green manure furnished by this hot country summer cover crop.



A root system like this, three feet across and a foot and a half in depth, loosens up the ground considerably in the course of the sesbania plant's brief but prodigious growth. Note the nitrogen nodules which with the green manure provided by the great stalks, combine to make the wild hemp such a good soil upbuilder.

But sesbania macrocarpa, to give its full name, has other uses quite as interesting, especially in such places as Imperial Valley where a rotative scheme has been followed in the growing of vegetables. Where lettuce, cantaloupes, watermelons, peas, or whatnot have been planted, the general custom has been to rotate with alfalfa every three years. After the findings made on sesbania however, the necessity for this is being questioned. The firm of Sawdy & Hunt, which grows a huge amount of lettuce in Imperial Valley, has made extensive experiments with sesbania and pronounces it of real value.

Four years ago this firm began incorporating the plant into its growing scheme. Now sesbania is used on some 3300 acres of its own lands, while a thousand acres more which is leased often receives the same treatment. These growers believe that, for lettuce at least, it will be possible with sesbania to carry on without going back to alfalfa and still keep the land in good condition. Lettuce is off the field early enough for the planting of sesbania, and the wild hemp can be plowed under and rotted before the land needs to be bedded for the next year's lettuce. There seems to be no danger of overbalancing the elements in the soil, for lettuce needs both nitrogen and humus and both are naturally lacking. However, Sawdy & Hunt, never consider that sesbania furnishes all that is needed for the growth of lettuce. They say, rather, that it puts the soil in a prime condition to get the most out of other fertilizers that they use. The firm still buys superphosphate and nitrate of soda as it did before planting the hemp.

Cultural Practices

This firm's manner of treating summer cover crop is interesting and the various stages are quite important if land is to found ready again for a fall crop. Forty pounds of seed are broadcast about the first of June. The ground is irrigated five or six times, which brings about a dense growth in sixty days. About the first of August it is plowed under with a disk plow, floated down and bordered enough to permit irrigation. This allows the stalks to rot. Without the additional water they will not decay in time for bedding. Properly treated, they disappear entirely in four or five weeks so that the land may be disked, floated and bedded quite as if no cover crop had been planted.

So "sold" are Sawdy & Hunt on ses-

(Continued on Page Eight)

Farm Bureau Lays Out Plenty of Work for New Year

An ambitious program of work for 1930 has been announced by the Los Angeles County Farm Bureau. A substantial increase in membership will be sought through the usual campaign and efforts will be put forth for enlarged activities. Considerable attention will be paid to the securing marketing organization memberships.

The bureau, co-operating with the agricultural extension service, will work for fire prevention, flood control, water conservation, tariff protection for products of the soil, improvement of local marketing conditions for better profits to growers and better values to consumers, continued cost of production studies, additional financial support for rabbit disease control work, nutritional research work in rabbit meats to be carried on by the Home Economics Department of the University of California, extension of the activities of the Pure Seed Association to include truck crops, improvement of the crop reporting service and more complete data on "intention to plant," and continued efficiency of the farm bureau's insurance department.

As for legislative work, the bureau will guard against measures which are bad from the farmer's standpoint, foster beneficial bills, seek to prevent undue taxation of agriculture, seek to secure basic rates on compensation insurance, keep a check on quarantine work, and seek to strengthen the State real estate act to protect both agricultural producers and investors in lands.

Active work designed to assist co-operative marketing organizations will include assistance to the State Bureau of Markets in securing greater efficiency of market news service, help to the Federal-State Hay Inspection Service, and co-operation with the Federal Farm Board in its fostering of producer-operated marketing organizations.

Active co-operation will be given by the bureau to the State Chamber of Commerce, Los Angeles Chamber of Commerce and other like bodies when such co-operation is for the best interests of agriculture, to the live-stock inspector, agricultural commissioner, the flood control office of Los Angeles county, the State and county health offices, State and local bankers' associations and the United States and State Department of Agriculture.

Local functioning tax committees will assist the tax research department of the California Farm Bureau Federation, and studies will be made of the relation of public improvement assessments to agriculture and to the effect of urbanization and subdivision upon agriculture in Los Angeles county.

The State law and utilities department of the Farm Bureau will be assisted, a reduction in power rates will be sought and the bureau will seek the establishment of a branch office of the department here.

In addition to this general program, the various commodities departments of the local farm bureau have arranged their work in co-operation with the extension service representatives.

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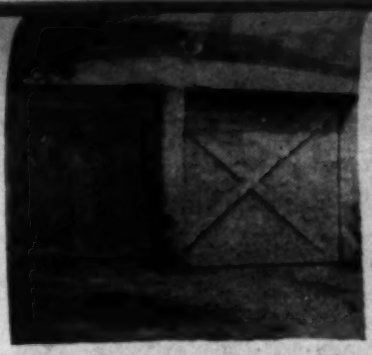

The "little high house in the hollow," home of John Stephen McGroarty, in the Green Verdugo Hills, showing the "calaboose" for Henry and the field stone terraces leading to the Nine Bean Rows.

"Little High House"

A VISIT TO THE SEER'S NINE BEAN ROWS

By Marshall Breeden

A BRINDLE cat was sitting beside a rock under a sign. It was not Socrates, the yellow cat. I could tell that, not only because of its color, but because of its lackadaisical, indifferent attitude. It was just too superior and did not seem to know of my arrival. Had it been Socrates, the philosopher of the Green Verdugo Hills, it would have welcomed us with arched back and friendly voice.

Above our heads a sign swung from iron hooks which were fastened to a twisted tree of oak. It said: "Rancho Chupa Rosa," and "John Steven McGroarty," so we knew that after all of our twisting and turning and climbing and slipping, we had arrived at the "little high house in the hollow," the king-pin rafter of all the rafters in the far-flung Synagogue.

The entrance, an unpaved, narrow, winding country lane overhung with trees, led me up its rather steep hundred yards or so, to the point where it divided itself to the right and to the left. We chose the left turning, chiefly because it was less tree-hung and steep, and came smack against the "calaboose" for "faithful little Henry," iron and gasoline slave of the author of the Mission Play. But alas, Henry was off traipsing on some distant shore, so we could not make his acquaintance.

Above us was the home of the philosopher of the hills. To the right, fully fifty stone steps led upward and upward, almost to the sky, but not quite—they really reached the back yard. On both sides of these foot-square stone climbers grow wild plants and trees, sage and greasewood, stunted oaks, and chaparral, with a score of giant oaks waving far, far above this mundane orb.

The square stone slabs stopped abruptly at a series of cobble-supported terraces, each heavily laden with shrubs, flowers and native wild growths. Here begins also the triumphant march of the Mother Mountains. At first the column moves at a slow slope, which is soon changed to the double quick, and presently the line seems almost to fall back over upon itself, so steep are the wooded sides, whose tops we could see afar off upon the distant blue of the horizon.

The cobbled terraces disappear into sloping soil supported by stones, and then comes a small cultivated patch of vegetables, maybe even the place of the nine bean rows we all know lie under the first rafter of the Synagogue. This clearing is generously surrounded by giant oaks, some evergreens, bushes, sage, wild mustard and some very tall holly, gay this season of the year with its red berries. Here and there, and here again, in this upperback yard, are grape vines, a rose bush or two, and an occasional Spanish Bayonet pointing toward the sky still high overhead.

All of the soil adjacent to this little "high house in the hollow," is, or seems to be, cobblestone protected. Indeed, so far is this carried out that even the lower portion of the Synagogue itself is made of cobble rocks, which no doubt came from a near-by source, for this Tujunga Valley seems to have been the resting place of an ancient stone rolling glacier, so plentiful are these round stones.

We came at last upon the front porch or portico. A vast space this, and from it a view of the valley spreads itself in paintings of the brightest hues, yellow and fine gold, merging into the blue-grey of the distant fringe of high tumbled hills beyond the valley. It is an imposing view. Little motor cars scurrying along the Calabasas road seem like toy things.

Mr. McGroarty's little high house is, of a verity, in a sort of hollow between the higher hills. Here is where the postman delivers the mail bag (about a hundred yards down the hill,) and here the ghost of Socrates, the departed, dresses its whiskers. And here in this secluded place is where the man with the phonograph talks with the statistician, the while they look over the world of Tujunga, near the home of the kindly philosopher.

It is a home not half hard to find, provided you have a good sense of direction and a stout heart. Follow the main stem, which is known on the street signs as Michigan avenue, through the township of

(Continued from Page Eight)

discarded the nuts and fruit and ate only the bread.

Many of the smaller birds live on fruit exclusively. Among these are the turico and the bulbul. The canaries in their huge, shrub-grown house of wire netting receive fruit in addition to seeds from their glass-topped star feeder.

One would almost believe Mr. Vanderlip knows bird language the way the orange-crested cockatoo swelled its neck ruff, the love birds caressed each other, the paradise whydah sailed its streamer of feathers and other birds displayed their individual tricks and charms as he identified them by name for me.

"Birds so friendly as these," he said, "might trust a stranger who would take advantage of their confidence if they were at liberty. Until such a day as all of our Californians and tourists cultivate as great courtesy toward birds as do the members of the Audubon clubs, it will be safer to keep the defenseless species inside the aviary.

"To hasten the day of better understanding the club members and others are helping their acquaintances to understand that most birds, through destruction of insect pests, are of value to agriculture. Bird lovers are also awakening the public to the beauty in color and song which birds add to the countryside.

"In the meantime I expect to release birds of many species adapted to caring for themselves. I will hope to hear that they are bringing pleasure to others."

Tujunga, past the old men and the young men playing at horseshoes, until, arriving at a cross street called Palm avenue, you turn left. Now the little high house in the hollow can be seen for miles around. Stay right on this street, past the home of the man who owns the phonograph, past the statistician's, yes, even beyond the place of the rich man gone fluey, look at the philosopher's fence, and turning now and then and often, you will come at last to the sign on the bent and twisted tree. Then, my boy, you have arrived, and mother may get out to point in rapture at the Synagogue.

The porch upon which we came to rest is fully fifty feet long and lined with rustic chairs. No doubt, the Millionaires' Club of Contentment meets here when Mrs. McGroarty is of a mind to serve, maybe, apple cider, otherwise John takes his seven pipefuls of tobacco to the philosophers fence below. The porch is a glorious up-in-the-air meeting place with the world for a front yard, but a careless step would shoot the new-come disciple into kingdom come, or at least start him toward the lower regions, where there are no synagogues with farflung rafters.

In these topsy-turvy green Verdugo hills there are many spots devoted to elfin glens, fruit trees, palms, and flowers. To the left, where the mother mountain rises sheer away from the broad steps leading to the front door, are five or six narrow terraces well peopled with roses and other flowering plants, while iris scatter themselves where they will do the most good.

The back entrance may be composed of foot-square cement blocks, but the front and honest way to arrive at the house is in a curving wide stairway of low steps and broad platforms. It is as if they were thus made to permit the ghosts of the padres to pause and count their beads as they ascend—Father Junipero Serra, the Indian Boy, Don Jose the Soldier, all the shadowy multitude trooping up the steps to the home of the man who remembered them.

Now look upward! on the extreme summit, the highest point, back beyond the reach of the voice of the phonograph, stands the symbol of the Mission Fathers, a gigantic cross upon the hill.

A Windbreak Criticism

After the tumult and the shouting about the value of windbreaks for citrus groves, comes now Dr. H. J. Webber of the citrus experiment station, Riverside, and opines that maybe we ought to look around and choose something better than eucalyptus and Monterey cypress for the windward border. The reason—eucalyptus raises Cain, he says, with the first few rows of Valencia oranges he examined. There are other trees which do not seem to bother orfinges by close proximity, says Dr. Webber, mentioning the silk oak, many palms, the palmetto and others.

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Lima bean straw is a substitute for barnyard manure as an orange grove fertilizer. The left-hand picture shows it being spread in a grove. Malva is an excellent cover crop for citrus uses. The center photos show a good stand whose heavy root system helps break up plow sole. At the right is an illustration of a convenient manure-spreading method.

Feeding the Citrus Tree

IT NEEDS REGULAR MEALS, BUT IT'S PARTICULAR ABOUT QUALITY

By Harold E. Wahlberg
Farm Adviser, Orange County

THE fertilization of citrus trees is no longer a question of "whethers" in the mind of the average grower. He learned long ago that fertilization is absolutely necessary to the economic production of marketable fruit. Statistics of the Citrus League of California show that the average expenditure for fertilisers over a large acreage is about $65 per acre. Probably no other producers spend as much for this commodity as do the citrus growers of California. Citrus growers in other parts of the world also are heavy users of fertilizers, an indication that they, too, have found the use of fertilisers necessary for profitable production. The question is as to the kinds of material to use and when to apply them.

The fertilizer trials at the Citrus Experiment Station, Riverside, are the oldest in the world and are admitted in scientific circles to be classics. They indicate that nitrogen and organic matter only have produced beneficial results in citrus production. Twenty-three years of comparative treatments of phosphoric acid and potash, used singly and in combination, have failed to give any measurable benefits. The plots show practically no difference between the phosphoric acid and the potash treatments and the check, or no-treatment plots. Furthermore, the combination plots of nitrogen, phosphoric acid and potash treatments have produced no better results than the plots where nitrogen alone was used. Of course, citrus trees, like other trees, require certain amounts of potassium, phosphorus and other elements in their make-up, but it appears from the data accumulated over a long period of years that California soils contain ample amounts of these materials.

Organic Matter Need

The importance of organic matter as a valuable source of fertility was early discovered. Its chief value, however, was not appreciated till more recently, when it was recognized as a medium for important chemical reactions that release essential plant food elements indigenous to our soils. The addition of animal manures, green cover crops, or other bulky organic materials, to the citrus orchard not only provides a supply of nitrogen and other plant elements such as potash, phosphorus, sulphur, and so forth, but the decomposition of the organic matter therein unlocks an appreciable amount of these elements in the soil and makes them available to the delicate feeder root system permeating the soil mass.

In the light of present experience, bulky organic fertilizers (manures, bean straw, alfalfa straw or hay) should be applied any time during the summer or fall months, say from June to December, inclusive. From two to six months are required for the decomposition of these materials. Decomposition is accelerated in the presence of moisture, and so it is desirable to disc or plow the material under, shallow. The material should be turned under with the least disturbance or destruction of feeder roots.

The application of concentrates or commercial nitrogen fertilisers should be timed so that they become available just prior to, and during the critical period of blooming and setting of fruit. The time of application may vary with the type of soil; for instance, a heavy clay soil being slower to warm up in the spring, should be fertilized earlier than a sandy soil. January application for the heavy soils, February for the medium soils and March for the lighter soils, have given good results. Weather conditions, naturally, influence the time of application. Here again, the movement and availability of the nitrogen applied depend upon moisture. Fertilizers left exposed on the surface of the ground are not useful to the tree unless a rain comes to dissolve and carry them down. If rains are uncertain, a shallow discing is desirable. Among the more common concentrate carriers for nitrogen are calcium nitrate, ammonium sulphate, sodium sulphate, dried blood and fish meal. Others such as cottonseed meal are used in more limited quantities.

Valle's citrus survey covering 600 mature orchards in Southern California over a period of five years, revealed a progressive correlation between the amount of nitrogen applied and the yield per acre. It shows that yields increased with greater applications of nitrogen, up to 350 pounds per acre. A composite summary of Valle's survey, the Chaffey experiments and other accumulated evidence indicates rather definitely that 200 pounds per acre of nitrogen is the most profitable amount for young and medium-aged bearing trees, with about 300 pounds for older trees.

The present cost of organic fertilisers would make it practically prohibitive to supply the entire nitrogen requirements from such sources except in young trees up to the time of bearing for mature orchards, it is within the range of economy to furnish half the nitrogen from animal manures or other bulky organic sources, and the other half from quickly available concentrates. If, for example, a total of 200 pounds of nitrogen per acre is to be used, 100 pounds should be derived from bulky materials and the other 100 pounds from concentrates. On this basis, ten tons of average barnyard manure that runs one-half of 1 per cent nitrogen will make a sufficient application to the acre. Other equivalents are three and one-third tons of lima bean straw, two and one-half tons of alfalfa straw, or two tons of alfalfa hay. Any of these may be applied during the summer and fall seasons.

The other 100 pounds of nitrogen will come from the early spring applications of concentrates. If calcium nitrate analyzing 15 per cent is selected, then 670 pounds per acre is needed. Sulphate of ammonia running 20 per cent nitrogen will require 500 pounds an acre; dried blood with 12 per cent nitrogen will take an 880-pound application, and so on. The amount to apply per tree may be determined by dividing the amount per acre by the number of trees planted per acre.

Charles B. Shearer grew this Giant Podded pole lima bean on the Redfield place near Downey. Jack the Giant Killer had nothing on Mr. Shearer.

Seedsmen Step Forward

By Helen W. King

ONE of the most progressive steps in matters agricultural that has been taken in recent years in this State was the formation of the California Seed Council, just a year ago this month. This was the direct result of a talk upon the advantages of such an organization, which was given before a group representing all agricultural organizations and agencies in the State, in June, 1927, by A. J. Ogaard, president of the International Crop Improvement Association. The Seed Council of North America was organized in December, 1927, composed of representatives from various sections of the United States and Canada, and a year later California organized her State Seed Council, being the second State to fall in line.

The object of the council is to promote unity of purpose, policy and progress among the various agencies directly or indirectly interested in farm seed problems. It constitutes a clearinghouse for information, ideas and suggestions for improvement, and aims to promote better understanding and closer relationship among these groups.

That the idea has a wide appeal is evidenced by the fact that nine States are now represented by State organizations—all formed within the last year. This includes the group under the Tri-State Council, representing Arizona, New Mexico and Oklahoma.

The California Seed Council is composed of one member each from seven groups, and two members each from two other groups. The men in the present council are: Alexander Johnson, representing the California Farm Bureau; R. E. Blair, State Department of Agriculture; A. E. Morrison, State Association of County Agricultural Commissioners; Prof. B. A. Madson, agronomy department of the University of California; Grace M. Cole, official State seed analyst; Maxine Wilkes, commercial seed analyst; Henry G. Turner, California Hay, Grain and Feed Association, with J. W. Schuler; J. E. Coke, California Extension Service; W. B. Early, Los Angeles, and A. A. Hart, San Francisco, for the State members of the Pacific States Seedsmen's Association, Prof. Madson is president, Mr. Hart is vice-president, and Mr. Blair is secretary.

The council holds four meetings a year, at which times the members discuss seasonal and general problems. At the last quarterly meeting for the current year, just held in San Francisco, Dr. Walter S. Ball of the State Department of Agriculture spoke on the problem of noxious-weed control, a subject which deeply concerns everyone inter-

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Little Farm Homes

Right Use of Water the Gardener's Problem at This Time

By Ross H. Gast

FROM newspaper reports, it seems that old J. Pluvius is gallivanting through the East and North, making calls without invitation. He certainly put us down for a late calling date, however, and that in the face of the fact that he knew he would be welcomed. Our precipitation is far below normal, and as this is written our lawns and gardens are facing a prospect of reduced water rations. Of course, the old rascal may play a joke and start a downpour just as this gets off the press. Well, let him!

The Los Angeles water board recently called upon citizens to watch their water usage carefully, and to eliminate all unnecessary waste. In a statement to water users, the board declared that it will be necessary to discontinue watering of shrubs and lawns unless needless waste is checked.

In Southern California, where water is the yardstick of our economic progress, education in water usage should not be limited to times of shortage. It should be constantly before the people, for it must be remembered that a large part of our population comes from areas where water shortages rarely come. These people do not realize the necessity for conservation of water, and, never having gardened under irrigation, they generally use twice as much water as is needed to carry their plantings. Their wastes extend to other water uses also. The board should realize this situation, and conduct a campaign of education designed to emphasize the importance of water conservation. They should know that we will ultimately bring in an abundance of water from outside the basin sources, but that in the meantime we should conserve every bit that we have available within the basin, or which comes in through the existing facilities.

My Candidates

One of my nominees for the Cyanide Club is the hand sprinkler. He is a waster of the worst sort, for he seldom accomplishes the real purposes of applying water to the lawn or garden.

I have often watched a neighbor of mine, taking his regular session with the hose in the evening. It seems to be more of a socal function with him than a garden practice. Every time an acquaintance comes along, he tucks the hose under his arm while they pass the time of day, the water running on the same spot for five or ten minutes while the World Series is won or the All-American eleven is selected. Then, with the lawn half covered, my neighbor's good lady announces dinner, and, hurriedly spraying the remainder of the lawn, he rushes into the house.

As a result, he has a very spotty lawn, which has really had enough water to take care of two lawns of the same size.

Then, there is the gardener who sprays his shrubs every evening, washing down the walks and even the house at the same time. It is true that shrubs should be sprayed every so often, but if water is applied in basins around the base of the plant every week or ten days, better growth will be secured, with far less water usage. Set sprinklers are efficient, for uniform regulated coverage can be secured with them, but hand sprinkling is a messy and wasteful habit.

And while we are on the subject of efficiency in the application of water, we might discuss the advisability of preparing the vegetable garden irrigation system for the coming year's operations. A little preparation as this time will go a long way toward the saving of time and water all during the heavy gardening period.

Preparation Pays

When a location for the garden has been decided upon (and of course this location is close to faucet or source of water,) steps can be taken to bring the water to the plants in the most efficient manner. One of the most successful home gardeners I know has a small wooden flume system for his vegetable garden, which is a rather large plot. This flume extends along the high side of the garden, and every three feet, or the average space between rows, he has a small berry gate set in. Under this system, he can regulate the flow into certain rows, as needed. This system saves a good deal of time and labor, for it does not require close attention. It also saves a great deal of water.

Claude Glass of Pomona is a poultryman and rabbit producer first, but a sweet potato grower "on the side." He is shown here with some of his fine "spuds." Above are his poultry house and patch of greens.

The head of this flume is at a faucet, and the water is turned into a box, out from which the flume is extended. The flume itself is made out of three pieces of 1x6 redwood, with the "seams" made watertight with tar. It can be moved from place to place, with the changing of the garden location.

On the small farm home place, where irrigation is carried out on a larger scale, many economies in time, labor and water can be achieved by the use of inexpensive surface pipe or short lengths of open wooden flume. The greatest saving of water is effected, however, only through a thorough understanding of the purposes of irrigation, so that plants will be given enough and not too much water. If one solves his water problem in Southern California, he has a major production problem solved.

Seaman Knows Beans

Capt. N. Wagner, 3492 Lanfranco street, Los Angeles, "home from the sea," has had some good luck with a small plot of backyard beans, of the White Kentucky Wonder variety.

He planted them in April, and has been getting beans all summer and fall, right up to Christmas, having sent some early in December to his daughter in New Hope, Pa. Disease and aphids were fended off with three good dustings of sulphur and a supply of ant syrup about the vines, the syrup giving the ants a substitute for aphis honeydew, albeit a lethal one.

The captain has three rows 30 feet long in these beans, and the rest of his 50x50 foot back yard of red clay, "better for brick making than farming," supported thirteen eggplants, each of which produced ten specimens this year, and six fruit trees. Tomatoes have been a stumbling block, succumbing to some trouble or other, but will be tried again next year in new ground, for hope springs eternal in the gardener's breast.

So much for the captain's garden. Now for a bouquet for Southern California. Capt. Wagner is an "old shellback" and has visited nearly every port in the seven seas. Southern California, for climate, has them all beat, with possibly one exception, an island a mile and a half long by a mile wide. Because Southanders are always interested in possible rivals, further information is appended. The isle is in the South Pacific, latitude 30 degrees south, longitude 125 west. It is about 3000 miles south and west from Los Angeles and the same distance from the west coast of South America. It has a population, or had about eight years ago, Capt. Wagner says, of 152 people, descendants of those who first landed on the shores from H. M. S. Bounty.

Grows Sweet Spuds

Poultry and Rabbit Man Makes Tubers Good Side Line

POMONA.—Claude Glass of this city grows sweet potatoes as a side line on his modern poultry and rabbit ranch, having had three years' experience in producing this crop for market.

By giving good care, Mr. Glass has produced some fine crops. Some of the finest he weighed, and says he secured the following figures: One hill of twenty tubers weighed forty-six and one-half pounds. Of the twehty, eight were "family size," weighing from two to five and one-half pounds each. The rest were all of marketable size.

Lifting Temperature

The maximum number of degrees by which the temperature may be raised by heating in an orchard during a cold spell is six or seven degrees, said Floyd D. Young, meteorologist in charge of the fruit frost service in Los Angeles county, at a recent series of meetings held in the county. He advised the use of horizontal thermometers especially devised for orchard work. The cost of heating will average $52 per year per acre, if firing is needed about ten times per season. Large oil-burning heaters, with stacks, should be placed at the rate of fifty per acre, while solid fuel heaters should total eighty to 100 per acre, not including the banking of heaters on the windward side, if necessary. Only torches which have brass screens in the spouts should be used, Mr. Young said, in discussing the element of personal danger. Cover crops affect orchard temperature slightly, but so slightly that, if the orchard is equipped with heaters, this factor does not have to be taken into consideration.

There's Still Time

February First Closing Date for "Little Farm" Contest

With several weeks yet to run, the first annual small farm home contest, sponsored by the Farm and Garden Magazine and the agricultural department of the Los Angeles Chamber of Commerce, has already engaged the attention of a large number of small farm home owners who are taking this opportunity to share their experiences with others. There is still time for entry and participation in the contest requires little time and effort. Here are the rules and regulations:

The prizes are: For best half-acre home, first prize, $25; second, $10; third, $5; best acre home, first, $25; second, $10; third, $5; best home over an acre and up to two and a half acres, first, $25; second, $10; third, $5.

No member of The Times staff or of Los Angeles Chamber of Commerce staff may compete. Model or show places developed by persons or firms for demonstration purposes to facilitate the sale of land are also barred.

An application letter of not more than 750 words, written by a member of the small farm home family, will form the basis for a preliminary judging of the homes, after which the judges will make a final decision by visiting the ten best places in each division. The letter should answer the following questions:

1. Why did you seek the small farm home as a place to live?
2. What advantages in personal satisfaction and better living have you found in the small farm home?
3. Have your plantings and poultry yards contributed substantially to your table? To your actual living?
4. Where is the head of the family employed, and in what capacity?
5. How many hours a day are spent in the maintenance of the small farm home place?
6. How is your place laid out? (A sketch of the property giving the location of all planting, building and poultry yards, drawn to scale, must accompany this letter.)
7. What equipment (tools, etc.) do you find necessary to care for your place?
8. What original features and labor-saving practices and devices have you developed to take care of your place?

Farm and Garden Magazine reserves the right to publish all letters and sketches (other than those of winners) that are submitted at the rate of $1 each, in addition to the regular space rates.

On the Air

The radio program held under the auspices of the agricultural extension service, in co-operation with KFI, is as follows for the week beginning December 30:

December 30.—Citrus Question Box, by M. B. Rounds, farm adviser Los Angeles county.

December 31—"Food Makes a Difference," by Florence Glenn, home demonstration agent, Imperial county.

January 2—"Windbreaks for Orchard Protection," by Woodbridge Metcalf, extension specialist in forestry, University of California, Berkeley.

January 3—"California Persimmons Seek World Markets," by H. E. Wahlberg, farm adviser, Orange county.

January 4—"Save the Heifer Calves," by Jay Dutter, southern representative, California Dairy Council.

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Birds His Hobby

NOTED FINANCIER HAS RARE SPECIMENS

By Louise Funston Shields

WHEN the distinguished financier, Frank A. Vanderlip, bought the great Palos Verdes ranch some years ago, he had in the back of his mind the idea of becoming a Californian. Business interests kept him elsewhere most of the time, but he found, or took, time to pay many a visit to his vast sea-girt holding, thoroughly enjoying every moment spent in a rambling bungalow built for just such vacations. In the meantime the hill and mesa and coast acres of the ranch were being converted into a splendid community of homes, stretching from the heights above San Pedro almost to Redondo Beach. Now the famous New Yorker is about to realize a dream of years and settle down as neighbor to the folk who have built so many beautiful homes on the one-time ranch domain. For years landscapers have been engaged in preparing the site for the wonderful home in which he expects to spend the rest of his life, and construction of which will ere many months have been completed.

That Mr. Vanderlip is now dyed-in-the-wool Californian is amply attested by the fact that he, like other adopted sons of the Golden West who have means and leisure, has taken unto himself a hobby. They all do it. With one, it may be subtropical fruits; with another, rare flowers; the breeding of fine stock may be still another's absorbing activity. Mr. Vanderlip's is wild birds, and he has been so interested in these that he has gone ahead with his aviary plans without waiting to get really "located."

To add rare imported species to the wild bird life of his adopted State—that is the former banking wizard's main thought. As a first step in this plan, he has recently set at liberty scores of Chinese golden pheasants, European ring-neck pheasants, "white turkeys," shimmering silvers and other varieties, the product of his aviary to date. It is just a "starter," he declares. He prohibits shooting anywhere on his Palos Verdes holdings and has called upon motorists and residents in the areas which the birds may visit to co-operate in this effort he is making to add another and beautiful attraction to California. He counts upon help from Audubon societies and other organizations of bird lovers for the protection of wild species, both native and imported.

"Our pheasants and other powerful-winged birds had been living in cages," he told me, "but I could not bear to see them beating their wings against the wire. The emancipation proclamation followed. Some of the freed birds have chosen to remain near their birthplace and continue to come around for a hand-out. I have seen others many miles from Palos Verdes district. I hope their new neighbors will protect them."

He admits that his interest in birds does not go back very far. He has no story to tell about a boyhood passion for wild life. The vacations on his ranch, it seems, gave him time to acquire a greater love of nature. He thought it would be interesting to have birds about the place, and realized that in California's climate many kinds would flourish. Friends in other parts of the world learned that he was collecting rare specimens and began sending him pairs. Then the hobby was born. Now he has a collector employed to obtain "natives" in other lands. The latter will soon be back at the ranch with some unusual ones from Australia.

"I expect to keep some of the birds in the aviary for their own protection," he said, "but those able to take care of themselves in this section I am setting free. I must trust to the appreciation of the public. I want particularly to emphasize that I am not engaged in stocking a game preserve for the sport of hunters. I want to have a place where song birds, insect destroyers and birds with bright plumage may nest and live in safety. We have already extended winter hospitality on our duck pond to wild waders and have fed wild quail through the cold months. Nothing would make me happier than to turn all of our 13,000 acres on the Palos Verdes into a great bird Sanctuary."

Meets Young Scientists

Members of a school Audubon club in Los Angeles county, who are doing their best to protect the wild birds in their own vicinity, became acquainted with the birds of the aviary on Palos Verdes Ranch in a recent afternoon visit.

Mr. Vanderlip had invited the young scientists and he escorted them personally through the corridors of the wire-netting bird-houses, explaining character traits which he studies daily.

"Our visitors showed the spirit of seasoned ornithologists," said their host. "They subdued their voices and refrained from quick, jerky movements out of respect for the shyness of feathered creatures brought from remote brush, field and jungle."

The young bird-protectors, it seemed, exclaimed longest over a pair of crested blue pigeons and their 3-weeks-old fledgling. They liked parakeets, cockatoos, love-birds, and macaws, all belonging to the parrot family. The graceful swans, the sweet-voiced bulbul from India, the brilliant orange-headed whydahs, the melodious Peking robin, the mischievous Australian magpie, "Maggie," all came in for admiration. The adjutant stork from India with its prominent bill and scanty fringe of hair, was promptly named "Uncle Bim." Amusement greeted the trumpeter bird when he threw back his head, gulped deeply and made a gurgling sound like the slow emptying of a bottle. The youngsters also saw a sight that scientists have gone to Africa in vain to see the pirouettings of an African crowned crane before his mate.

The day I visited the aviary Mr. Trumpeter was most sociable. He strutted along beside Mr. Vanderlip with as much dignity as if he were a part of the Fifth Avenue Sunday morning church parade. He became jealous of attentions paid a young pheasant that joined the line of march and offered to fight him. Acting like a naughty child resisting discipline, he finally yielded to a gentle push from his master's walking stick and returned to his own compartment. Appearing to feel no disgrace in his banishment, he strolled along with us, although separated from us by the wire netting.

Needs Are Studied

Each bird in the aviary receives as careful consideration as do pupils in the most modern of schools. Tastes and preferences for food, tendencies to physical ailments and their correction; needs for exercise and bathing; incentives to song, play, and work in nest building and insect hunting are studied and recorded. The keeper of the aviary gives each new arrival the food recommended by the bird dealer; but upon any indication that the bird is not thriving, he varies the diet until he discovers the combination producing the best results.

For instance, the dealer who sent the Blue Mountain lories had for several months fed them an exclusive diet of seeds. He knew these lories were accustomed to feed upon the Eucalyptus blossom pollen in their Australian home, but because of the difficulty of obtaining such blossoms, he had fed the the seeds. The lories arrived at the Palos Vedres aviary, thin and weasoned. Their feathers had lost their gloss. The keeper, knowing that the birds are difficult to rear in captivity, introduced fruit, and toasted bread soaked with condensed milk or honey into their rations. Knowing the lories are a pest to grape growers in Australia, he gave them an abundance of grapes. They showed immediate improvement and their plumage now has a brilliant sheen.

The English nightingale, despite predictions that it could not live in the United States, is thriving in its orange-tree thicket removed from the path of most visitors, and it enjoys a carefully arranged diet of boiled eggs, spiders, woodlice, grubs, and two kinds of rations bought from a dealer—ant eggs and mocking bird food.

Each of the orange-headed starlings is privileged to eat two oranges a day, a banana, mocking bird food, a bit of hamburger steak, brown bread, and all the insects he can find on the shrubbery of the compartment which he shares with other starlings and his weaver bird cousins. When offered raisin-nut bread, h

(Continued on Page Twelve)

Mr. and Mrs. Frank A. Vanderlip on the edge of the pool they have provided for waterfowl on their Palos Verdes estate. They are counting over their domesticated mallards to see if any more wild strangers have come to live on the place, as several have in the past.

Scores of pheasants born and bred in Mr. Vanderlip's aviary have been released to roam where they will, for the former New Yorker believes that such birds added to the wild life of his adopted State will contribute greatly to California's attraction. The silver beauty pictured at the right hardly knew what to do when he suddenly found himself free. In the center is an adjutant stork from India, named, for reasons obvious, "Uncle Bim." At the left, Mr. Vanderlip's youngest son, John, shows how easy it is to win the confidence of the wee songsters of the aviary.

Desert Crop Leads

Coachella's Grapefruit Brings Best Average Price

INDIO.—Coachella Valley grapefruit received the highest average price per box of all citrus fruits in Riverside county for the year ending November 1. This Statement is based on figures recently released by Deputy Alexander P. Hansen from the office of the Riverside County Horticultural Commissioner A. E. Bottel.

According to the figures, Coachella Valley growers shipped about 100 carloads during the year ending November 1 and received an average price of $4 per box. Thus the citrus crop returned a total of over $184,000 to the valley.

Although the total is relatively small compared to those of other citrus growing districts, the high quality of the Coachella crop speaks well for the future of the industry in the desert valley. The earliest of this fruit is ready for the Thanksgiving market and the season extends throughout the winter. Fruit grown in what is known as the Oasis district is probably a trifle earlier than that grown around the Indio district due to the fact that artesian wells, in the former area flow water at temperatures of as much as 100 deg. or more.

In the Oasis district, which lies adjacent to the northwesterly end of the Salton Sea, the soil is mostly a loose sandy loam which appears to be ideal for growing of the thin-skinned and sweet fruit. The valley has a very definite slope, giving good air drainage, and with the warm water, the frost danger seems to be at a minimum. However, the foremost growers do install smudge pots, considering that these are first-class insurance.

Some of the finest and prize-winning fruit has been produced in the Indio section. Many of the growers along the Indio-Palm Springs highway market a large portion of their fruit at their ranches. Packed in fancy boxes, it is either carried away by the winter tourist in person or shipped by him to friends all over the United States. Mail-order trade becomes especially heavy just before the holiday season.

A long pole with a special saw attached makes an extension arm for the walnut tree pruner, who can stand on the ground and cut out the growth inside.

Pruning Walnuts

(Continued from Page Nine)

cut and prevent the blade from becoming clogged.

These three saws may be obtained at most of the hardware stores in walnut growing districts. If only one saw is desired, No. 522 is recommended as the best all-around-purpose tool. The saws are all interchangeable on a mount which, for convenience, has been numbered "520." Wrapped and shellacked bamboo pruning poles of various lengths, with mount well attached, can now be obtained at the stores. If not carried in stock in the local store, poles can be had from the same wholesale hardware store which carries the pruning saws. A small handsaw will be a most convenient addition to the others, and a pair of lopping shears for summer use will be very useful. With these, the ends of low branches hanging in the way of cultivation can be taken off.

Thinning the Tops

The easiest way to open up a tree is to start at the top and work down. Choose a branch here and there for removal. Perhaps the branch you select will be between two others which are sufficient to fill the space, or perhaps it will be a branch which crosses over another; it might be one side of a two or three-forked crotch or perhaps small stunted top or side-growth which is being choked off gradually by a strong growing lateral. Usually several branches can be located which come into such classes. Occasionally it will be necessary to remove large limbs.

By working from the ground you will be able to judge better the relative position of various limbs and the amount of light admitted by the removal of each branch.

Some Cautions

If pruning is done after all leaves are off, remember that the branches have "lifted" and are hanging much higher than they will be in summer when in leaf and carrying fruit, so do not open up the top too much. Make allowances for natural drooping.

If trees haven't been pruned regularly, don't cut them too much the first year. Leave a little for next year or the year after. If too much is removed in one year too many suckers develop, and fruit wood will be slow in differentiating. Ordinarily from $2.75 to $4 per year will prune an acre of old trees, if the job is done regularly and consistently. On the other hand, if three or four years work is done at one time, the job may cost $15 to $20 per acre. Consistent, moderate, annual pruning is the better practice. By this method, a regular supply of new wood is developed for fruit bearing, the trees receive no shock, and most of the cuts will be reasonable in size. Spasmodic pruning results in large, ugly wounds which are subject to rot.

Limbs should be cut off close to the part remaining. A slightly larger wound is made, but the area will be healed over much quicker than if a stub is left. Any cuts over 2½ or 3 inches in diameter, especially if directly exposed to rain and weather, that is, facing upward, should be protected by asphalt paint. Only one—an asphalt suspension in water—will stick to a "green" wound. Oil-thinned asphalt works very well on dry wood. Grade "D" or hard asphaltum can be melted and mixed with linseed oil, about half and half, for a very cheap and good paint.

Branches get down in the way of ground operations occasionally. Frequently the taking off of low, hanging end growth will so lighten the weight that they can be kept for several years' production. In "shortening in" such a branch, always cut to a lateral; never stub off a walnut limb, for a mass of sucker growth will immediately develop, and the tree will be in a worse condition than before.

Any time after the harvest is completed is probably all right for walnut pruning. There are still many leaves on the trees at that time, and there is room for argument on the point, but it is generally believed that no serious harm will result from such practice. There is an advantage in that the amount of light admitted by removing given branches can be judged better at such a time. On the other hand, it is harder to find the branches for removal. If put off until December and January, pruning may interfere with cover cropping. It is safe to prune up until the time that growth starts in the spring.

Turkey Men to Meet

A turkey producers' conference will be held at Davis, January 2 to 4, inclusive, at which natural versus artificial incubation and brooding will be discussed, as well as disease, feeding, and marketing problems. A field tour to farms using artificial methods will be included in the program.

Raises Silver Foxes

Baldy Mesa Suits Producer of Valuable Fur Animals

VICTORVILLE.—Baldy Mesa is all right for silver foxes, says Dr. J. T. Whitaker, who moved his fox farm to that district from the Big Bear country three years ago. He reports that the animals have fared well, are healthy and lively, are increasing from year to year without loss from any source, and that climatic conditions seem about right for them.

Sales of breeders are made frequently enough to keep the total number of animals down to the capacity of the pens. At present Dr. Whitaker has seventy-five of these beautiful black animals.

This fox breeder thinks that Baldy Mesa strikes a nice balance as far as location is concerned. Farther back in the mountains there is a fire menace in summer and deep snows in winter. The mesa is not subject to these drawbacks, he says.

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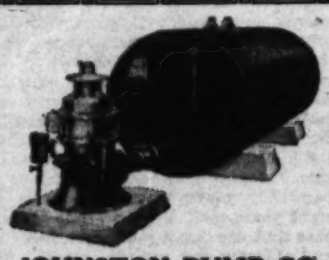

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WITH THE PRODUCERS

The Plum's Future

NO ADDITIONAL PLANTINGS ARE ADVISED SAVE FOR EARLY VARIETIES

CONSIDERABLE interest is always apparent when the University of California announces a new bulletin dealing with the economic prospects of some of the State's hundreds of crops. The latest to come from the press deals with plums, and should find the same popular response awaiting it that has greeted the others of the series. Ask your county farm adviser or the college for free Circular 34.

P. W. Allen of the college's division of pomology is the author. His general conclusions follow:

Considering the fact that the bearing acreage in California is expected to increase gradually for several years to come and that the present general level of prices for plums is not likely to increase, it would scarcely seem justifiable to recommend any additional plantings except in the early producing districts. On the other hand, except for short periods when the market may be temporarily glutted, it is believed that the better varieties, sizes, and grades of fruit will always find satisfactory sale. Poor quality, immature, small sized, or miscellaneous varieties will most likely fail to pay expenses. Little encouragement can be given the grower who is poorly situated with reference to soil and irrigation facilities and whose orchard contains numerous undesirable varieties.

California plums meet little competition from plums grown in other States. Sales managers of marketing organizations report that early varieties do meet considerable competition with Georgia peaches, while the mid-season and later varieties come into competition with California Bartlett pears and with shipping prunes from the Pacific Northwest.

Plums are grown in California for three distinct purposes: For shipping as fresh fruit, for canning and for drying. In a large measure the fruit grown for shipping purposes is produced in different localities from that grown for drying. Moreover, growers shipping their crop as fresh fruit or selling to a cannery are designated as plum growers, while those producing the drying varieties are known as prune growers. Although the different orchard operations and the production of shipping plums and prunes are in some respects similar, the harvesting and handling are different, and the two classes of growers have diverse interests and different problems.

As a previous publication has been issued on prune growing, this circular considers only plum growing in the strict sense of the term. Even with the subject limited in this manner, it is impossible to discuss all phases of production and handling in any great detail. However, in connection with many of the topics considered, references are given to other available bulletins, and it is hoped that those who are interested in more complete information regarding any single phase of plum growing will secure these references to supplement the material given in this circular.

Getting sesbania into the ground was a first grew wild hemp as a cover crop, quite neatly. The tractor-drawn outfit growth, then discs it under. It is putti a winter let

A Benign Invader

Foreign Plant Sneaks In, But Is Adopted by Nevadans

Artiplex hortensus has invaded Nevada!

Transported from Germany or France without the knowledge of Federal or State officials, it has finally gained a foothold in Nevada. It is nothing to worry about, however, says Mrs. Mary Stilwell Buol, assistant director of the Nevada Agricultural Extension Service, in fact, it is welcome.

For Artiplex hortensus is a green leaf vegetable which seems particularly well adapted to the soil and climatic conditions in Nevada. In Europe it is called French spinach, mountain spinach, or butter leaves.

The new vegetable was discovered growing on the ranch of Mrs. J. V. Hermann, who lives in the Moana Springs district near Reno. Neither Mrs Hermann nor anyone in the vicinity could identify the plant. The help of J. Mischon, University of Nevada gardener, was enlisted. He knew even its scientific name.

Growing to a height of five or six feet, Artiplex hortensus resembles the weed lamb quarter, and has leaves about the size of an adult's palm. It bears all during the growing season. A row twenty-five feet long will supply a large family with green-leaf vegetable stuff for the table.

Although Artiplex hortensus is listed in seed house catalogs only as an ornamental plant, it bids fair to become well known in Nevada as a food. From seed saved from this year's crop by Mrs. Hermann, demonstration plots are to be sown in each community center in Washoe county, and one test plot in every other county in the State.

Pecans for Desert

(Continued from Page Three)

future years for successful competition with the Gulf States.

It appears that pecans are as susceptible to alkali and high water table conditions as are grapes. The pecan is very deep rooted and requires a deep loamy or sandy loam soil, in addition to one free from alkali. Pecan soil should not contain any thick layers of heavy clay nor any strata of pure sand within at least six feet of the surface. A soil having fine sandy loam or clay to even a greater depth would be preferable. It would seem hazardous to plant pecans in Imperial Valley on land having a water table closer than ten feet from the surface.

The best variety of pecans for the Southwest is not fully settled yet. Imperial Valley ranchers, however, can profit from the variety experiments which growers in the Yuma district have been making. At the present time, the Yuma growers are pretty well agreed upon the Burkett and Kincaid as being good varieties. Of these two, the Burkett perhaps bears youngest and heaviest, while the Kincaid is faster growing. A number of the Yuma growers like the Success variety. This sort is perhaps a little shy in bearing in early years, but may improve with age. A few of the Yuma growers like the Halbert, which comes into bearing at an early age. The nuts of this variety are reported to be somewhat susceptible to cracking before harvest, while still on the tree. The Schley is a very high quality nut which, unfortunately, is very susceptible to cracking on the tree. It is reported that many varieties of pecans in the Southwest are subject to this fault, particularly when the trees are young. It seems that as the trees get older, there is less trouble from this cause.

Planting Practices

The best size of pecan nursery tree to plant is one that has grown from three to five feet from the bud in one season. When such a tree is planted, it should be severely pruned back to three or four buds above the bud union. This will reinstate a balance between the top and the root system, as the roots are bound to have been severely cut when the tree was dug from the nursery. This severe pruning will not set back the growth of the trees as much as might be supposed, and it will insure that a higher percentage of the trees will live. Pecans are planted at varying distances, from fifty to sixty or seventy feet apart. When planted fifty feet apart, seventeen trees are required per acre, while only twelve trees are needed when the trees are spaced sixty feet apart. Some growers might prefer to plant a rapid growing tree like the Kincaid, seventy feet apart and to interplant with an earlier bearing variety such as the Burkett or Halbart. It is obvious that with this wide spacing there is considerable room for intercropping during early years until the pecans come into production. In Yuma, pecans have been very successfully intercropped with alfalfa, cotton and other crops. December and January are recommended by the University of Arizona as the best months for planting pecans.

There are not enough old pecan groves in the Southwest to indicate very accurately the average yields which may be expected from pecan plantings. In a publication on pecans by the University of Arizona, it is stated that the following yields on pecans planted sixty feet apart, twelve to the acre, might be expected under reasonably good management: Six-year-old trees, 100 pounds per acre; 10-year-old trees, 500 pounds per acre; 15-year-old trees, 1000 pounds per acre.

It muse be remembered that pecans are a new crop for Imperial Valley and are not yet out of the experimental stage and that it would be very risky for a rancher of ordinary means to make a large planting of this new crop. Ranchers wishing to diversify their crops, and who have the very best of soil and are interested in horticultural crops, might consider a planting, varying according to their financial means, from five to twenty acres of pecans.

While caution is advised in making commercial plantings, the general use of the pecan for ornamental and home orchard purposes can well be advocated. The pecan tree grows quite rapidly and eventually attains a large height and spread. It makes good shade in the summer and by shedding its leaves, admits the sunlight in the winter at a time when the warmth of the sunshine on the houses is appreciated. One or more pecans around the house are not only attractive and desirable ornamentals, but also can make a valuable and appetizing addition to the family larder.

No Longe

SESBANIA NOW HELD

(Continued from

bania that even rented ranches which have been given over to alfalfa and dairying and on which a good deal of bermuda may be found, are still given an immediate summer treatment of the hemp. The land is plowed as is customary and then planted with sesbania. Irrigation, coupled with the heat under the hemp, makes the old bermuda entirely disappear and permits a mueh finer bed for lettuce than results from merely letting the land lie over the summer as has been the general custom.

Checks have been made on production in the Sawdy & Hunt fields. On one ranch the first year only 92 crates of lettuce were produced where the land was plowed as usual and no hemp was planted. After the second summer, when sesbania was used, 180 crates were produced. The third year, after another crop of sesbania, 264 crates were harvested. Last summer the land was "built up" again, with results still to be written. Harold Hunt, who has made a special study of this method of building up land believes that all growers may benefit by the crop. He thinks that grain growers might double their income by the use of sesbania, since, in his experience, the soil is year by year actually changed in consistency. His suggestion is for sesbania to be planted and harvested one year, followed by barley.

The planting of sesbania has so much increased each year that seedsmen are having to gather seed in from all possible sources. Last summer the supply ran out before the demand. Most of the fruit companies of Imperial Valley are experimenting with it

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D FINE SOIL BUILDER

m Page Five)

on melons as well as on lettuce. While these experiments have not gone as far as those of Sawdy & Hunt, all see in sesbania a possible solution of the rotation problem. It is the simplest cover crop to handle with grapefruit, demanding only broadcasting and irrigation during the summer.

In the face of all this it is surprising to know that as yet no machinery has been devised to handle sesbania seed harvesting satisfactorily. A few years ago most of the seed was brought in from Mexico where the plant grew on waste acres and hand labor was cheap. This fall thousands of acres that were untouched before are being harvested there, while on this side of the line both in Imperial Valley and at Yuma sesbania is being gathered as never before. A few attempts have been made to use harvestors, but as yet nothing really satisfactory has been evolved. The general practice is to cut the stalks and beat out the seed on canvas. There are individuals who are even making a business of hiring men to go into the invaded milo fields, cut the hemp plants with a corn knife, pile them on 12x12 canvas which they carry with them and beat out the seeds and sack them.

The price level of sesbania fluctuates with supply and demand. Last year, early, it could be bought from dealers for from 9 to 10 cents. By planting time it had advanced until top prices had reached 22 cents and even then supplies were exhausted. This year seems to be starting at much the same level as last with big companies already having contracted to buy thousands of pounds of seed.

A Step Forward

(Continued from Page Six)

ested in the production and distribution of farm seed.

Dr. Ball pointed out that, while considerable attention has been paid to the weeds which develop in the fields, those that flourish by the roadside and in fence corners and bring grief to farmers seeking to grow pure seed have been sadly neglected. It is of vital importance that these weeds find no safe harbor anywhere and to that end Dr. Ball intends to conduct an educational campaign in their control. The various groups represented in the council are heartily in accord with the plan and will lend themselves to the program in every possible way. A committee was formed to work with Dr. Ball.

In Colorado, the same plan worked very well, Dr. Ball declared. Information was put out through the agricultural departments of the public schools, for example, and direct results were obtained from the instruction carried home by the pupils. The schools here will be used, but much of the work will be carried on through the extension service, the State Agricultural Department and the Farm Bureau. Dr. Ball contends that it is a matter of education and not of legislation.

The Seed Council is co-operating with the agronomy department of University of California to develop and maintain pure strains of all farm seeds, and it will aid in securing additional appropriations and land from the State to further this work.

One of the functions of the council is to consider suggestions for changes in legislation affecting agriculture in this State. It will attempt to establish the position of the various agricultural groups some time in advance of the meeting of the Legislature.

The advantage of such an organization as this, meeting to discuss the specific problems of each particular group, can scarcely be overestimated, for it broadens the viewpoint of each member. All the work is undertaken with vision and consideration for the "greatest good to the greatest number."

Pruning the Walnut

IT ISN'T "ESSENTIAL" BUT IT HELPS A LOT

By Marston H. Kimball
Assistant Farm Adviser, Los Angeles County.

ONE of the most important parts of a well-balanced program of operations in a walnut orchard is pruning. True, trees will continue to produce year after year even though saws or shears never touch them, but an unpruned tree soon becomes exceedingly dense, limbs crowd and overlap each other, many die for want of sunlight, inside bearing fruit wood dies out, and production is limited to the shell of foliage which forms a canopy over the top of the tree. Practically all the nuts on such trees are directly exposed where Old Sol can apply a good sun-tan color, resulting in a second grade or amber kernal. Nuts borne on properly maintained inside fruit wood are partially shaded and are usually of better quality.

Pruning, then, takes its place as an operation, not absolutely essential (such as irrigation,) but one which plays an important part in maintaining productiveness, quality and tree vigor.

Hand in hand with pruning goes orchard thinning, or the removal of trees which are crowding each other. Many orchards in Southern California were planted forty or forty-five feet apart, and when such a planting reaches fifteen to twenty years of age, pruning will not offset crowding. The only remedy in such a case is to "prune" some of the trees off at the roots. There are many orchards badly in need of thinning.

Both pruning and orchard thinning (whole trees removed) have to do with distribution and effective use of sunlight. It is essential that the leaves on all parts of the tree receive either direct sunlight or strong daylight at some time of the day. In the leaf, water and dilute minerals from the soil are combined with carbon dioxide, which the plant extracts from the air. This combination is affected by the green coloring matter, or chlorophyll, of the leaf, and by the energy of sunlight. The resulting compound is the basis of all plant food and is used by the plant for growth of trunk, root, leaves, or for fruit development.

The process cannot go on without green leaves and we cannot have green leaves without sunlight. Leaves receiving insufficient sunlight cease to function and the manufacture of plant food ceases. The leaves turn a pale green, then yellow, and finally drop off. The wood on which they were growing will be immature and weak, lacking in fruit buds, and probably will die before the end of summer, and if not then, in the winter. The reader may recall having seen yellow, pale leaves inside many walnut trees during July and August, long before it is normal for walnut trees to drop their leaves. Also, he has no doubt, seen small dead wood throughout the central portions of such treet, all caused by lack of sunlight and resulting in tree starvation.

How to Prune

Our knowledge of the best methods of walnut pruning is not as definite as that for deciduous fruit trees. Nevertheless, all evidence, observation and experience indicate that a thinning out of the tops, causing a distribution of fruit wood, is best. By opening the tops of the trees, light is permitted to penetrate all portions. The result will be development of new wood on the long bare limbs in the center. As soon as this wood becomes sufficiently mature, fruit buds will form. Such small growth will live as long as it receives enough light. Pruning must be regular and consistent.

The removal of crowded trees brings about much the same result for an orchard as does pruning for an individual tree. Sunlight is admitted to the shade-killed sides of whole trees, new growth is stimulated, and it will be but a few years' time until the development of new fruit wood brings a crop equal to that borne by all the original trees.

The aim of pruning, or whole tree removal, becomes a matter of light adjustment. All other factors being equal, production will be in proportion to total leaf area. The greater the active leaf surface, the greater the power of the tree to absorb and use sunlight, and, the greater will be the quantity of food available, first for growth of the tree and, second, for fruit production. The needs of the tree for maintaining growth will be taken care of by nature first. Fruitfulness depends upon excess supplies of plant food.

What Is "Too Dense"?

The problem facing the man at the end of the pruning saw handle is the determination of when a tree is too dense. There are several guides by which one can judge. In the first place, watch the foliage inside the trees during summer. If much of it turns yellow ahead of outside foliage, you may know it is being shaded out. Of course, if all the leaves turn yellow, the tree is dry, and that's another story. The top should be "opened up" the following winter. "But," some one says, "I didn't notice that inside foliage during the summer, and now it is gone. What can I judge by." Examine the inside growth while it is still in place and it will tell its own story. If the leaves dropped off during summer, the inside wood will be largely dead, and if not dead, it will have a shriveled, weak appearance, with no fruit buds. If that condition is found, the answer is the same—thin out the tree tops.

"But I've a different condition," says another man. "I didn't think that inside growth was of any value, considered it sucker wood, and cut it all out. I haven't any inside wood." Here the denseness becomes a matter of comparison. Perhaps your neighbor has his trees opened up and is maintaining inside fruit wood and you can observe his trees. If not, just size up the amount of light you think could penetrate the tree when all leaves are on, and let your conscience be your guide.

One of the first "don'ts" in pruning is "Don't take off the inside fruiting wood." Of course, you will need to thin it somewhat. Take out the largest sucker—like shoots which are unbranched and which are growing very vigorously, but leave the smaller, finer, shorter, more leafy growth. That is what will make fruit wood.

Incidentally, if there are a great many large upright suckers in the tree, chances are the tree has been pruned too severely—a case of too much light. In that case take a winter vacation.

Tools to Use

When it comes to opening up the tree don't go out with a ten-foot ladder, a pair of lopping shears and a hand saw and expect to open up the top. It will be out of the question to climb high enough to get the branches you want out. A pole with a saw on the end is the tool for the job. Poles can be obtained from ten to twenty feet long. Three special walnut pruning saws have been worked out by the intercounty walnut growers' department of the Farm Bureau, in co-operation with the agricultural extension service, each designed for a different use. Walnut pruner No. 521 is a twenty-inch saw with eight teeth to the inch, and was designed for use on small limbs or comparatively young trees, say, up to six or eight years old. By the time trees are past that age, limbs are larger, less springy, and a larger saw can be used. Walnut pruner No. 522 is a 4-point, thirty-inch blade that goes through the average limb like the proverbial hot knife through butter; it performs splendidly up in the air at a fairly good angle. The teeth carry a strong pitch and, as a result, cut very fast, too fast, in fact, for horizontal or near-horizontal cuts. For such cuts, low and heavy, a third saw was devised, known as walnut pruner No. 523, a typical cross-cut timber saw with "drag" teeth to carry sawdust out of the

(Continued on Page Ten)

WING AND TRACTOR BUILDING EXPLAINED
(Continued from Page 4)

3-32 of an inch wide and equal in length to the cross-pieces shown by the tail pattern. The shorter of the two is not straight but made slightly concave as shown by "A" on the drawing. Cement the two at right angles and cover with

terns Nos. 1, 2 and 3. Assemble the wing by halves, first assembling the parts making up each wing half. Now butt joint each half at the center rib, raise the wing tips until a 2½-inch dihedral is formed and cement together. Cover the wing surface with Japanese tissue, following the instructions of the previous lesson to assure a good tight smooth covering job. It is advisable when covering the wing to work from the center out to-

just as described in a previous lesson on propellers. Assemble all parts in the same relative position as the corresponding all parts on the R.O.G. model.

And now the fun begins! The rubber motor is a 1-8-inch strand thirty inches long. Tie the ends with a square knot to form a band fifteen inches long. Hook one end of the band over the propeller shaft and the other end over the rear hook. Before winding up the mo-

WITH THE PRODUCERS

BEFORE THE DAY OF BANKS A MAN ABOUT TO SET OUT ON A LONG JOURNEY WOULD ENTRUST THE FUNDS HE LEFT BEHIND HIM TO THE SAFEKEEPING OF THE LOCAL GOLDSMITH. —•

MEMBERS OF THE MIDDLE AGES SOMETIMES WORE THEIR GOLD IN CHAINS AROUND THEIR NECKS. —• THE LINKS WERE CUT OFF AND USED IN PLACE OF COINS. —•

IN ENGLAND IN THE 15TH CENTURY MANY PEOPLE, PARTICULARLY INNKEEPERS TURNED THEIR SAVINGS INTO SILVER PLATES AND CUPS TO GET THE FULL USE OF THEIR MONEY. —•

HIGH LIGHTS of HISTORY — THE FIRST BANKS. — BY J. CARROLL MANSFIELD

WHILE THE PRACTISE OF MONEY LENDING BY PRIVATE INDIVIDUALS IS DOUBTLESS AS OLD AS MONEY ITSELF, THERE WERE NO LARGE BANKING INSTITUTIONS UNTIL THE FIFTEENTH CENTURY, A.D.

IN 1402, WHEN A SERIES OF COSTLY WARS HAD EMPTIED THE TREASURY OF GENOA, A LARGE GROUP OF WEALTHY GENOESE MERCHANTS FORMED THE COMPANY OF ST. GEORGE TO LEND FUNDS TO THE REPUBLIC.

TO REPAY THE LOANS, THE REPUBLIC PLEDGED THE DUTIES ON IMPORTS TO THE COMPANY, EACH MEMBER OF WHICH RECEIVED A SHARE THAT WAS IN PROPORTION TO HIS CONTRIBUTION.

THE COMPANY MADE OTHER LOANS TO THE GOVERNMENT, ACCEPTING PUBLIC LANDS AS SECURITY. THIS CONTINUED UNTIL THE COMPANY HELD MORTGAGES ON NEARLY ALL THE LANDS OF THE GENOESE REPUBLIC.

THERE WERE PRIVATE BANKS IN VENICE AS EARLY AS THE 12TH CENTURY, MOST OF THEM CONDUCTED BY NOBLES. LATER, THESE WERE SUPPRESSED BY A LAW FORBIDDING NOBLES TO ENGAGE IN COMMERCE.

IN 1587 THE EARLIEST KNOWN NATIONAL BANK, THE BANK OF VENICE, WAS FOUNDED. ITS SOLE PURPOSE WAS TO SAFEGUARD THE FUNDS OF DEPOSITORS. IT PAID NO INTEREST AND MADE NO CHARGE FOR ITS SERVICES.

LATER, THE GOVERNMENT BEGAN MAKING PAYMENTS IN BANK BILLS INSTEAD OF COIN. THIS NEW FORM OF CURRENCY BECAME POPULAR WHEN THE PEOPLE FOUND THAT IT WAS ALWAYS GOOD AT THE BANK FOR ITS FULL VALUE. ———•

AT THE BEGINNING OF THE 17TH CENTURY AMSTERDAM, HOLLAND, HAD BECOME THE GREATEST PORT IN EUROPE. THE NEED OF FACILITIES FOR COMMERCE LED TO THE FOUNDING IN 1609 OF THE CELEBRATED BANK OF AMSTERDAM.

THE BANK OF AMSTERDAM RENDERED SUCH GOOD SERVICE AND KEPT ITS CREDIT SO HIGH THAT BEFORE LONG IT HAD DRAWN A GREAT PART OF THE WEALTH OF EUROPE INTO ITS COFFERS. ———•

THE FAMOUS BANK OF ENGLAND WAS FOUNDED IN 1694, DURING THE REIGN OF WILLIAM AND MARY. AT THAT TIME ENGLAND WAS AT WAR WITH FRANCE, AND IN DIRE NEED OF MONEY FOR SHIPS AND MEN.

VARIOUS MEANS OF RAISING FUNDS WERE TRIED, — STAMP-DUTIES AND SPECIAL TAXES, — AND FOR A TIME THE GOVERNMENT OPERATED A LOTTERY. STILL THE REQUIRED AMOUNT OF MONEY WAS WANTING.

THE BALANCE WAS RAISED BY A LOAN, THE SUBSCRIBERS TO WHICH CONSTITUTED A CORPORATE BODY UNDER THE NAME OF THE COMPANY OF THE BANK OF ENGLAND. —• NEXT CHAPTER, "THE HISTORY OF BANKING IN AMERICA."

Another Page in This Series Next Sunday. Save Them! They Will Be Valuable in Your School Work, as Well as for Home Study

WING AND TRACTOR

BUILDING EXPLAINED

(Continued from Page 4)

3-32 of an inch wide and equal in length to the cross-pieces shown by the tail pattern. The shorter of the two is not left straight but made slightly concave as shown by "A" on the drawing. Cement the two at right angles and cover with Japanese tissue forming a supporting tail surface the size and shape shown by tail pattern.

Next the rudder. It is made precisely as the "Gruber" R.O.C., rudder except that the balsa members are 3-32 of an inch in width. After butt jointing to the shape shown by the rudder pattern, cover with Japanese tissue and cement to the fuselage. Note particularly that the lower rudder member is not in line with the fuselage (when viewing from the side) but slopes up slightly; this is very important.

Now assemble the tail surface to the fuselage and rudder making certain that point "A" on the tail pattern cements to the fuselage as shown at "A" on the tail surface assembly view.

MAKING WING

The procedure in making the tractor wing is identical with that when you made the wing for your R.O.C. First make the spars—making two spars each nine inches long for the entering edge and two 9 1-8 inches long for the trailing edge. Next make the ribs and bend them to the proper curve as indicated by rib pattern. Cut out [illegible] the parts making up each wing half. Now butt joint each half at the center rib, raise the wing tips until a 2½-inch dihedral is formed and cement together. Cover the wing surface with Japanese tissue, following the instructions of the previous lesson to assure a good tight smooth covering job. It is advisable when covering the wing to work from the center out toward the wing tips and completing each section before proceeding to the next one.

Now to locate the wing clips you will notice that the smaller wing clip fastens to the entering edge of the wing and the large clip to the trailing edge. But also observe that the wing clips do not straddle the exact wing center but are actually off center. This is done to give more wing area on one side of the fuselage than the other side and helps overcome the tendency of the model to roll over due to the "prop" torque.

ASSEMBLY AND FLYING

Make the propeller from a piece of 7-8 by 1 by 10-inch balsa. It is of the Langley design and made [illegible] as a previous [illegible] All parts in the same relative position as the corresponding parts on the R.O.C. model.

And now the fun begins! The rubber motor is a 1-8-inch strand thirty inches long. Tie the ends with a square knot to form a band fifteen inches long. Hook one end of the band over the propeller shaft and the other end over the rear hook. Before winding up the motor, let the plane glide from your hand to the floor. If it tries to climb and then settles back on its tail, move the wing back on the motor stick a little bit. If it dives to steeply, set the wing forward. When it glides evenly you are all set for a flight.

Wind up the motor by twirling the propeller until the rubber shows a double row of knots. To launch the model hold the motor stick with your right hand, using your left to keep the propeller from turning. When ready release the propeller with your left hand and the plane with your right.

NOVICE TRACTOR

Designed by Gilbert Westphal, Queen Ann Playground Aircraft Club.

Club leader and adviser: W. W. Harrison.

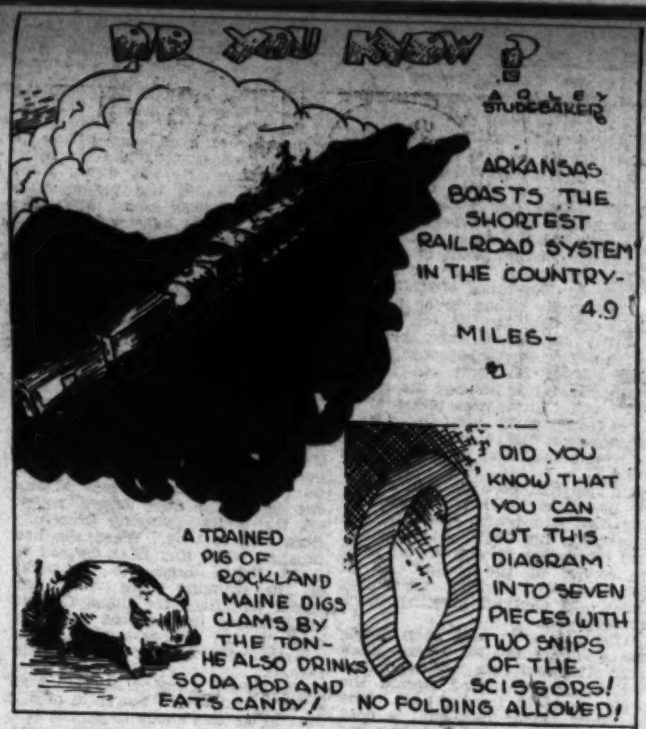
Gamekeeper: Have you been stealing game?

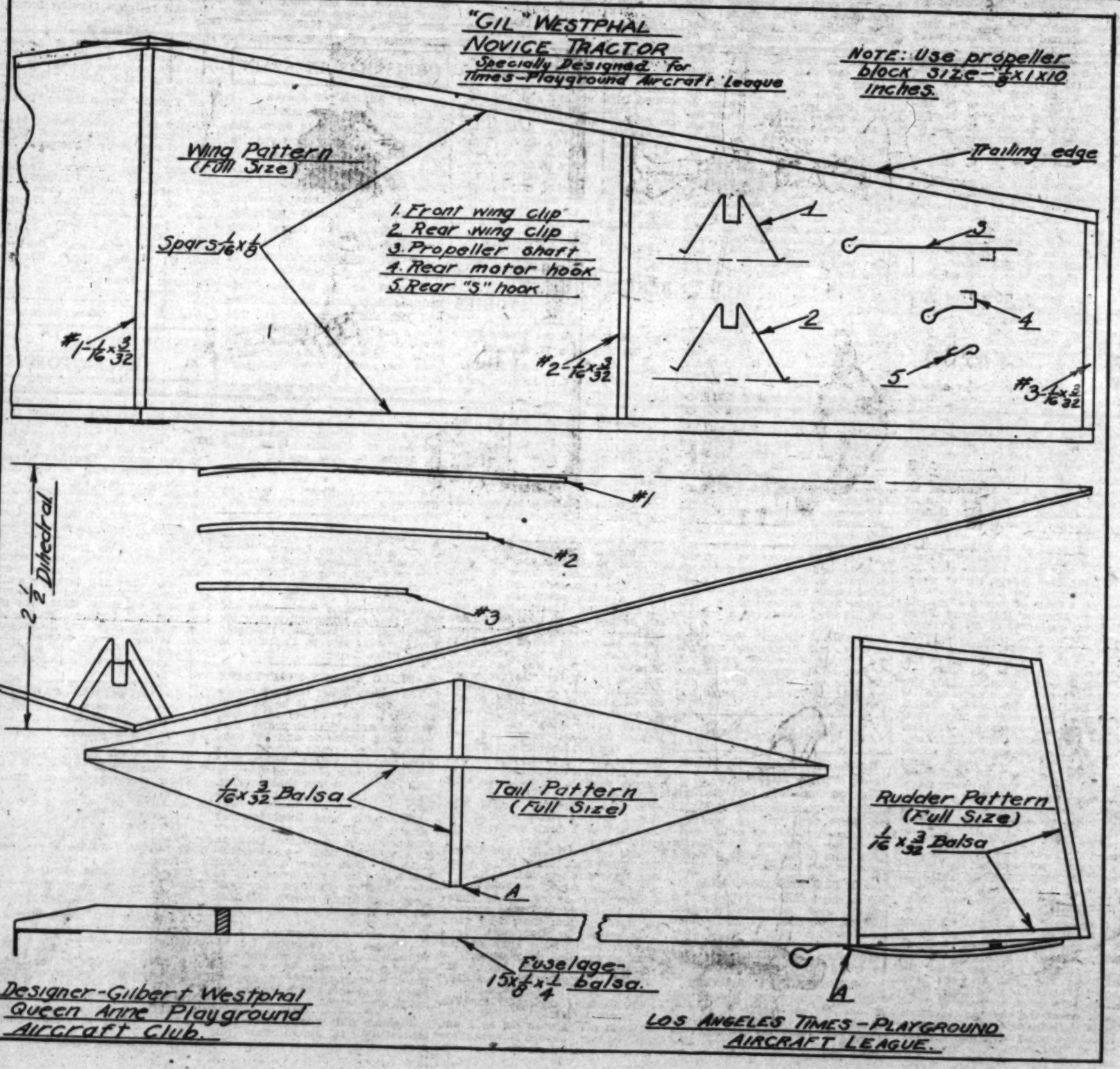
Trespasser: No, I have just walked along.

Gamekeeper: But the dog only barks at game.

Trespasser: Then he must have found out that my name is Partridge.—[Lustige Koltner Zeitung, Cologne.

The Netherland East Indies has a building spurt.


DID YOU KNOW?
By Ripley Studebaker
ARKANSAS BOASTS THE SHORTEST RAILROAD SYSTEM IN THE COUNTRY- 4.9 MILES-
A TRAINED PIG OF ROCKLAND MAINE DIGS CLAMS BY THE TON- HE ALSO DRINKS SODA POP AND EATS CANDY!
DID YOU KNOW THAT YOU CAN CUT THIS DIAGRAM INTO SEVEN PIECES WITH TWO SNIPS OF THE SCISSORS!
NO FOLDING ALLOWED!


"GIL" WESTPHAL
NOVICE TRACTOR
Specially Designed for Times-Playground Aircraft League
NOTE: Use propeller block size- 1/8 x 1 x 10 inches.
Wing Pattern (Full Size)
Trailing edge
Spars 1/16 x 1/8
1. Front wing clip
2. Rear wing clip
3. Propeller shaft
4. Rear motor hook
5. Rear "S" hook
#1 - 1/16 x 3/32
#2 - 1/16 x 3/32
#3 - 1/16 x 3/32
2 1/2 Dihedral
1/16 x 3/32 Balsa
Tail Pattern (Full Size)
Rudder Pattern (Full Size)
1/16 x 3/32 Balsa
Fuselage- 15 x 1/8 x 1/4 balsa.
Designer-Gilbert Westphal
Queen Anne Playground
Aircraft Club.
LOS ANGELES TIMES-PLAYGROUND AIRCRAFT LEAGUE.

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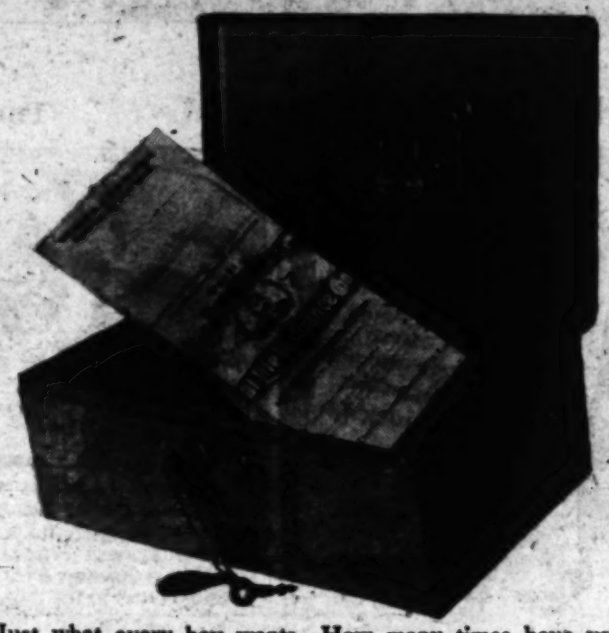
FREE *for Boys and Girls* **FREE**

ELECTRIC STOVE

for Girls

Just what every little girl would like to have—an electric stove that will actually cook and bake a cake. Harmless, too. Tea kettle, cake pan and stew kettle with lid, included. Comes all ready to attach to light socket. Heat coil is protected so that child cannot burn clothes or hands. Given for securing two NEW one-month subscriptions or one NEW three-month subscription paid in advance to this office at the time the order is sent in.

TREASURE CHEST



Just what every boy wants. How many times have you wished for a good strong box to keep your tools in, or to keep souvenirs of last summer's vacation? This is just the thing to give dad or mother for a Christmas present. It is made of heavy gauge steel, size 10 inches by 7 inches by 4 inches deep and has handle to carry it with. All seams electrically welded. This treasure chest will be given to any boy or girl who will secure two NEW one-month subscriptions to the Los Angeles Times, or one NEW three-month subscription paid in advance to this office at the time the order is sent in.

MECHANICAL TRAIN and Track

for Boys

Watch the engine whiz the cars over the figure-eight track. Listen to the click-click as it goes over the cutover. Hours of fun can be had with this mechanical train and 16 feet of track. Sells in the stores for $4.50. Given to youngsters for securing 4 new one-minth subscriptions to the Los Angeles Times, or two new 3-month paid in advance subscriptions. Money must accompany paid in advance subscriptions at time the subscriptions are sent to this office.

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An electric corn popper for one new subscription. Just the thing to pop corn these fall evenings. Simply attach to your electric-light cord and in a few minutes you have popcorn for the entire family and guests. Comes in pistol blue finish, with wooden handles. Nationally advertised at $1.50. Given to boys and girls for securing one new one-month subscription to the Los Angeles Times.

Oh! Look—SIGNALING FLASHLIGHT

PRESS THE BUTTON AND IT FLASHES WHITE.
PRESS THE BUTTON AND IT FLASHES RED.
PRESS THE BUTTON AND IT FLASHES GREEN.
COMES PACKED WITH INTERNATIONAL SIGNAL CODE. The latest thing in flashlights. You can strap it on your wrist or attach it to your hat, coat or belt. Given for securing two NEW one-month subscriptions or one NEW three-month subscription, paid in advance at the time the order is sent to this office.

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(Continued on Page 2, C.

THE DAY'S

FEATURES. Radio, Page 2, C. Women's Pages, Clubs, Page 6, Part II; Music, Page 14, Part II; Marine, Page 15, 16, 17, Pictures, Page 11, Part I; Page 12, Part I.

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NEWS IN SPANISH. Page 1, Part I.

SHIPPING NEWS. Page 15, Part I.

NEWS OF SOUTHERN OIL. Police raid said to have public became jealous of capture of Mrs. Ju at Pasadena. Miss Tu elected to ride in Tournament of Roses in San Bernardino pa Leopers during 2 $10,500. New Jersey fund for San Bernardi

SPORTS. Pittsburgh to p for game with Trojans Page 9, Part II. Triumph of Trojans ma side feat of East complet I, Part II.

Brown Wisdom victorious in race at Agua Caliente Page 11, Part II.

Zuppke and Utah battlers tonight. Page 9, Part II.

Today in doldrums this week. Page 9, Part II.

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Many join in mass for Mrs. Phoebe Apperson Hearst, mother of Wm. Randolph Hearst, at Page 1, Part II.

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Named in forced landing case. Page 1, Part II.

Industry scheduled for 1930. Page 2, Part II.

Council to pass on Colleg

REMEMBER TH

Tomorrow has never all of the centuries existence of this world, yet arrived.

CHIRPIE OF THE BUG CIRCUS

BY CAREL MOON

All Bugburg was in a commotion. Little bugs were running wildly around, getting on every one's nerves, and shouting at the top of their lungs. Why? Because there was to be a real bug circus! Never before had such an event occurred in all Bugburg.

Several days before this, twenty gnats had become town criers, and flown throughout the town and towns, for bug-miles around, announcing the circus, to be held in the open field by the tall pine.

Little Chirpie Cricket, brushed off his new spotted jacket, again and again. His dear old grandmother had just finished his waistcoat, and Chirpie was proud of it. The grandmother was also proud, for was not her own grandson to be sword swallower in the coming event?

Chirpie had been practicing, until he could swallow an ordinary bug-sized sword with ease. He was supporting his old grandmother, and depending very much on what he earned at the circus. All of Bugburg liked Chirpie, his sunny smile and cheerful greeting made him popular.

The tiny ants had been fixing the circus grounds for weeks. Each little stick and twig had been carried away and placed around the circle, so as to form a wall. The trap-door spider had built a door by which to enter. The whole place was carefully guarded by seven chosen mighty warriors, the bees. They each had a tiny sword tucked away under their wings.

Early on the appointed morning, a crowd of June bugs, cricketa, potato bugs, mayflies and numerous others of the bug world, came trooping down the hill to the circus. They had on their "Sunday best." Even grouchy Mr. Cockroach wore a crimson tie and white spats.

Each and every insect, bug or worm, had a penny. It was on these pennies that Chirpie Cricket depended to support his old grandmother. One wealthy grasshopper had even brought two pennies! For a penny, one could see the entire circus—side shows and all.

"Sally Ann Ant! If you don't stop begging for pink lemonade, I shall give you to the Pirate Beetles!"

At this terrible threat, the little ant girl began to cry loudly.

"There, there, dear, I shan't do anything of the sort, so do stop crying," said Mrs. Ant. "The Pirates won't come near us, with such strong men as the bees to protect us."

At this compliment, the nearest bee-person aforementioned, thrust out his chest and swaggered away.

"Right this way, folks, right this way! Come, see the clowns, acrobats, the wonderful spinner lady (Miss Spider,) and the famous tattooed lady, in person! Also, the fattest lady and the thinnest man in the whole bug world! As an added attraction, we have with us today, Chirpie Cricket, the famous and popular sword swallower! He actually swallows sharp swords!"

Every once in a while, Herbert Grasshopper, the appointed "barker" of the show, had to stop his shouting and take a sip of water from a small jug that was standing on a table of rock near by. He was so-called for this reason. From the very beginning of the performance to the end, and in between times also, Herbert had to shout out the thrilling attractions of the circus at the top of his lungs.

Chirpie was a-tremble. This was to be his first appearance, and he had just a wee bit of stage fright. He not only wanted to make good for his dear grandmother, but also for a very pretty little girl cricket, that was breathlessly waiting to see her friend do his act. Susie Cricket meant an awful lot to Chirpie. She had helped him in many ways. In fact, it was Susie who had suggested that Chirpie join the circus with his wonderful talent to help him. It would be a nice way to earn money, which he needed very much. Chirpie had taken her advice, and now was on the threshold of success or, he hated to think of it, failure.

The little inclosure was growing fuller and fuller. It certainly looked as if the circus would be a success.

Chirpie had plenty of time yet, so he decided to take a look at the show. First, he came upon the thinnest bug that he had ever seen! It was the needle bug. Carefully printed on a piece of birch bark, below the bug was the name, "Living Skeleton." Farther on, he came to a potato bug, who was posing as "The Fat Lady." Beside her sat "The Tattooed Lady," (a lady from the far end of the insect. Chirpie ran hurriedly to the spot, and found a young bug fearfully eyeing a dragon fly. Below was the name, "Dragon." He reassured the little girl, and went on.

Pretty soon, he went to where a number of bugs were sitting on little stones, placed there for their convenience. He sat down, and began to watch the performance. Sweet music was heard, and after glancing around he saw his friend, Kirky Katydid, leading an orchestra of cricketa. They were all in tune, and it sounded very beautiful to the pleased audience. Soon Chirpie began to laugh, for several little clown tumble-bugs were jumping and tumbling around doing funny tricks. A beautiful spider-lady came out and curtsied before the audience. She had on a dress made from spun silk. A platform with two brushes placed on either side, was in the center of the circle. The spider lady climbed upon one of the bushes and began to weave a beautiful web. Down the center she wove several ropes; all the while, swinging gracefully from twig to twig. When she had finished, some tiny fleas dressed in satin tights, began to do tricks on the swinging ropes that the spider had fixed for them. Chirpie snickered as he saw one lady bug take out her glasses, and stare in astonishment at the dively little rascals.

Chirpie felt a tug on his arm, and a voice whispered, "You're in next." Just as he was about to go out before the audience, screams were heard outside. "The pirates! The pirate beetles are coming," yelled the seven, now cowardly bees. At once everyone was in a panic. They were all rushing for the door. Chirpie saw that something must be done at once, but it was too late for order to be restored. All of the bugs were either flying or climbing trees, as fast as their little legs would carry them. When the pirates arrived, no one was in sight but a small cricket that was running toward a tree with all his might. In a second, the unfortunate was surrounded by several score of beetles.

"Ha! Ha! We have you anyway," sneered one rascally looking pirate, apparently the leader. The little bugs up in the tree, looked on in helpless agony, while they saw their poor friend Chirpie Cricket (for that's who it was!) surrounded by scowling beetles, who had absolutely no mercy in their cruel hearts.

Just as the leader was about to grasp and tie Chirpie, that remarkable individual apparently committed suicide! With a deep sigh, he said: "Good-by Bugburg, and my dear friends, you have been very kind to me."

With that, he plunged his little sword down his throat, and fell upon the ground. The beetles looked on in surprise. "Well," said the leader, "no use taking a dead cricket with us. We couldn't get any ransom for him."

So the beetles turned around and marched back over the hill disappointedly.

As soon as they were out of sight the mournful bugs climbed down from their trees and walked softly over to where poor Chirpie lay. Susie Cricket was crying pitifully. If Susie could have seen through her tears, or if the others had looked closely they might have seen a smile flitter across Chirpie's face and his eyes open ever so slightly.

Suddenly, without the least warning, that individual sprang into the air, waved his sword in the face of his astonished audience and laughed. "Well, this is one time that swallowing my sword has saved my life!"

HOLIDAY RECIPES

By Dorothy Kelley, San Pedro

WHITE MONKEYS

Cut marshmallows into quarters, and press them securely into pitted dates with the soft side up. Dip into shredded cocoanut. Peanut butter moistened with lemon juice, and coated with toasted cocoanut is also good.

GYPSY BROWN BURRS

Run equal amounts of dates, nut meats, and shredded cocoanut through food chopper. Add orange or lemon juice, and a bit of candied orange peel. Knead the fruit paste, shape into little balls. May be rolled in toasted cocoanut.

ORANGE FONDANT DATES

Stir into the lightly beaten yolk of one egg, a cupful of confectioner's sugar, adding orange juice until you reach the proper consistency for stuffing. Press into pitted dates.

LETTER BOX

Dear Aunt Dolly:

I received your letter with my pin quite a while ago. I was very proud of my pin, but one day when I was playing baseball in physical education, I lost it. I hunted for it everywhere, but could not find it. Could I have another one? I read the whole Junior Times magazine every Sunday. I think some of the stories contributed by children are more interesting than some older people's stories.

I am reading "The Magic City" and "The Cracked Mirror, and I think they are almost too exciting. I wish they would be finished soon, as I want to know how they come out.

I have worked very hard to get some story or poem or picture to contribute, but have not until now had anything good enough. I hope this story, "The Candy Cat and Its Adventures," is accepted.

Lots of love,

[Signed] BEATRICE SHEPARD,
Pomona.

Dear Aunt Dolly:

I read The Junior Times every Sunday, and I enjoy it greatly. "The Magic City" and "The Cracked Mirror" sure are good stories. I keep up with them, and can't wait until they end. They leave off at the most exciting part, though. I want to become a member of The Junior Times Club. Would you allow me to do so? I am very much interested in the things The Junior Times contains.

Your sincere admirer,

[Signed] JUNE POORE,
Inglewood.

Dear Aunt Dolly:

Here I am, away in Chicago, but wishing I was in Los Angeles. Of course, I like my own city, but right now, I wouldn't mind visiting in California! But this is the reason for my letter. I want to know if I can please join The Junior Times Club—may I? Please! I'll be waiting every day for a letter from you, and for the blank to fill out.

I have just reached my fifteenth birthday a short while ago. How long will I be able to be a Junior Times member?

With love,

[Signed] VIOLET BURKE,
Chicago.

BURGESS BEDTIME STORIES

Flip Sits Down in the Wrong Place

By Thornton W. Burgess

Youth, impulsive, often heedless,
Suffers much that is quite needless.

—Old Mother Nature

Bowser the Hound shook his head. Yes, sir, he shook his head. "Flip," said he, to the little terrier that had come to make his home at Farmer Brown's, "for a smart dog you know the least of any dog I ever knew."

Flip cocked his head on one side and lifted one ear. "Is that so?" said he. "Well, if you were to go where I came from I have an idea that some of the dogs in our neighborhood would tell you the same thing. You don't know a thing about the city and I do. I don't know a thing about the country, but I'm willing to learn. No one can ever induce me to pick up a toad again and I've learned that some things that fly it is just as well to leave alone." Flip was thinking of Bumble the Bee, who had stung him on the nose. "By the way," continued Flip, "how did you find out that mud is good for a sting?"

Bowser grinned good-naturedly. "I was young once," said he. "I learned all about stings and mud then. You just keep it in your mind that the thing to do if you get stung is to get some damp mud on it as soon as possible. It takes out a lot of the pain."

"I wont forget it," replied Flip, "but I can tell you one thing and that is that I don't intend to get stung again."

"You never can tell," replied Bowser. "You didn't intend to get stung this time, but you did."

"I wouldn't have," replied Flip, "if I hadn't been so inquisitive. Hereafter, I'm going to keep a respectful distance from those who carry little needles in their tails. Let's go down in the Long Lane and see what we can find down there."

Bowser shook his head. He yawned. "I'm going to take a nap," said he.

"You're lazy," declared Flip. "Yes, sir, you're lazy!"

"When you are as old as I am, you'll be lazy," replied Bowser. "You run along down there and When you [illegible] Flip was quick to [illegible] Bowser to come, so he trotted off alone. He entered the Long Lane that leads down to Farmer Brown's cornfield. Flip had liked that Long Lane ever since he had come there to live. There were big trees on each side, so that it was shady and cool. In the bushes along the side one was likely to find almost any one. Flip had even jumped Reddy Fox in there once. He could almost always find mice. He couldn't always catch them, but he could always try. It was great fun. If Striped Chipmunk happened to scurry across the road, Flip would become so excited that it seemed as if he tried to turn himself inside out. There was always something new for the inquisitive little fellow to investigate in the Long Lane.

Flip almost caught a Meadow Mouse and had a great time trying to dig it out of the ground. Then he chased a squirrel up a tree. He ran from one side to the other. He wasn't still a minute. By and by he became very hot and somewhat tired.

"I'll rest a bit," thought Flip. "I'll sit down on the bank over there and rest."

So Flip scampered over to the bank, which gave a nice view up and down the Long Lane. And there he sat down, his tongue hanging out as he panted. But he didn't sit there long. Suddenly, with a yelp, he jumped up into the air. Then he began to whirl around and around, as if he were chasing his own tail. What it all meant he didn't know, but one thing he did know, and that was that he had sat down in the wrong place.

(Copyright, 1929, T. W. Burgess.)

CHRISTMAS IN SPAIN

By Antonio C. Correa

The mistletoe, holly and Christmas trees are scarce in Spain, but the season is rigidly observed in churches. The Spanish people like music, mirth and hilarity, so make them the leading feature of the occasion. The different provinces have different customs naturally, but Christmas is the day of days throughout the land.

The boys and girls, dressed in their prettiest and best, the former carrying guitars and the latter tambourines, sally forth into the streets and join the throng in fun. The streets are lit with electricity and the sidewalks are crowded with stalls of turkeys, ducks and fruits from the country, awaiting a purchaser.

When the bells clang the hour of midnight, all hurry to the churches, where sacred celebrations are held. Christmas Eve in Spain is not complete without dancing. Three masses are held on Christmas Day, and all attend at least one of them. Nativity plays are given in some places.

A curious incident is that on Christmas morning employees present their employer with Christmas cards, expecting in return, a box of good things.

Children have no trees to gather around, but instead have a miniature set of the birth of Christ. After lunch, the people seek out-of-door pleasures.

In every part of Spain, song and dance play an important part of the Christmas celebration. Bullfights are given as late as December in some parts.

MARRIED EIGHTY-NINE YEARS

The oldest living married couple in the world is said to be found in Semlin, a little village in Serbia. Documentary evidence proves that Demetrius Filienovic and his wife, Zivana, were already married and living in the village, where they had spent their childhood days, in 1839. Demetrius was then over 21. He is now fully 110, and his wife is 107.

The couple have lived together for eighty-nine years, and are now surrounded by numerous children, grandchildren, and great-grandchildren. Both are in excellent health and in the enjoyment of all their faculties. Filienovic has never smoked or drunk spirits. He took his last glass of wine thirty years ago.

Although the prospects for advancement are better in the large stores and in trades, 70 per cent of the girls leaving schools in England prefer to go into offices because the hours are shorter.

England will spend more than $180,000,000 on automobiles this year.

OUR ROLL OF HONOR

ANT WORKERS' CLUB

Group A

John Lippera, Barney Kahn, James Arlington, Helen Stephens, Annie Walmsley, Evelyn Jeagers, Henry Livingston, Maud Brown, Ed Cannon, Bill Tara, Jr., Albert Kaelin, Rodell Johnson, Bob Hammerly, Hayward Smithers, Harry Simpson, Barney Kahn, Stan Pudlo, Irving Spector, Ernest Robinson, Amos Ancker, Jerry Bell, Harvey Raymer.

Group B

Billy Wall, William Preston, Betty Peyton, Jack Ellis, Tom Otani, Milt Snyder, Louis Zukovsky, Edmund Shultz, Joe Araiza, Barney Kahn, Arnold Hanson, Geraldine Starr, Rose Prescott, Ella Simpson, Arnold Wright, Mary Davis, Patricia Miller, Amy Jones, Robert Ross, Nellie Davis, Ernest Snyder, Anna Soest, Fern Armstrong, Paul King, Laura Morrison, Anna Heater, Mamie Hare, Violet MacDonald, Hazel Renouf, Philip Muriset.

WRITERS' CLUB

Group A

Stories: "En's Lesson," Miriam Cone; "Tailor Bird," "Thrush," Dorothy Dertina; "The Snapshot," Aaron Klein.

Poems: "Late Summer," Ruth Bell; "Thanksgiving," Wilna Cornwell; "The Fog," Ione Winey; "Thanksgiving," Martha Davis.

Editorials: "California Wild Flowers," Clara Scott; "Origin of Basket Ball," Carl Kondo; "Florence Nightingale," Dora Iszel; "Memmon's Music," Aurilie Jacque.

Cooking recipes: Dorothy Brown, Dora Izuel.

Group B

Stories: "The Ghost of Arrowhead Mansion," Donald Geoffrion; "That Boy," Antonio Correa; "Tom's Radio Shop," A. F. Gates; "Thanksgiving Day," Beth Gould; "Too Much Turkey," Aaron Klein; "Dawn Patrol," Bob Norton.

Riddles, jokes, puzzles, games, Mabie Fujimoto, Aileen Perliss, Elisabeth Hobbs, Nelle Thompson, Le Roy Campbell.

Poems: "The Rainbow," Loretta Abeel; "School Days," Lillian Levin; "Death is But Life Anew," "A Song of California," Carl Kondo; "Calm," Alberta Rae Miles; "Success," Charles Hamilton; "Living Night," Ruth Bell; "The Little Brown Bee;" "Monkeys," Rebecca Sarfatty; "Brown Bee," Barbara Leigh; "Ocean Thoughts," Alice Ginsburg; "Dream," Ruth Bell; "The Family Prayer," Dixie Waldorf; "Flying," Bernice Bergstrom; "Memorial Day," Diane Holtzman.

JUNIORS WIN EXTRA POINTS

Two little Juniors will be thrilled to find they have won ten points each in our last Lila-Lee color contest, Toshiko Kojima, of San Diego, climbing into first place through the use of cream, yellows, and pale pinks. She has worked out a striking outfit for our fairy princess of "Magic City."

Louise Karuse, whose home is in Los Angeles, also came in for her share of laurels, by choosing apricot pinks, dove grays, and a touch of gold. Our Juniors are certainly receiving valuable training in the art of color combinations, which should be of great value to them later on. They can never be guilty of dressing in outlandish clothes.

Keep it up, gang. Make the pot boil fast and furious. Points are mounting sky high, and that means more prizes. Never become discouraged; if you fail to win this week, there's always a chance later on.

AS CHRISTMAS DAWNS

By Neva Asadoorian, Roosevelt High School, Pasadena

As Christmas dawns, two little sprites
Slip down the stair so cautiously,
And, opening soft the parlor door,
Their stockings on the mantel see,
A winsome girl, a merry boy,
Both dance in joy
As Christmas dawns.

And now the children's gifts peep forth.
Two curly headed ghosts in white
Draw forth a drum, a doll, a horn,
And hail each toy with loud delight.
Oh, laughing girl, oh, carefree boy,
Now skip with joy
As Christmas dawns.

Anon, the splendor of the tree,
Bedecked with glittering trinkets gay,
Absorbs each eye, with neighbors all
Give greeting glad this happy day
When Christmas dawned.